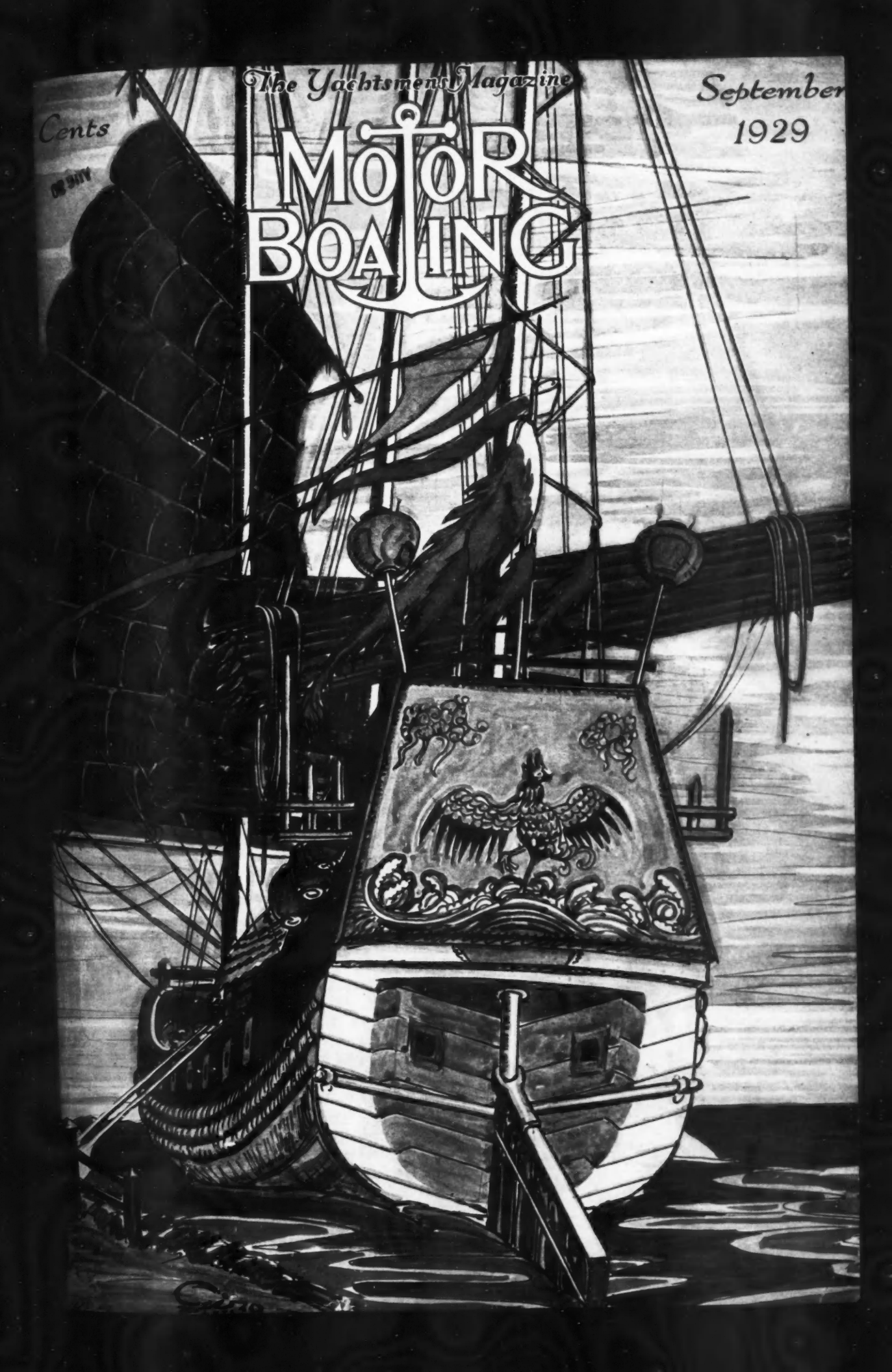
The Yachtsmen's Magazine
MOTOR BOATING
September
1929
Cents

A 30 YEAR DEVELOPMENT

BOHNALITE

Bohnalite, the new light alloy, took 30 years of patient study and constant research to perfect.

Bohn metallurgists, having experimented with thousands of "heats" for various purposes, can now recommend the precise alloy to cover your requirements.

Bohn special heat treating processes are exclusive with this organization. And you know the great commercial value of scientific heat treatments.

Remember Bohnalite, in addition to being 62% lighter than iron, has high uniform hardness—great density—fine grained structure—unusual strength—excellent bearing qualities—and is ductile.

Write us today. Send your samples and blue prints. Let us show you the economical advantages of Bohnalite. Send for literature.

CHAS. B. BOHN
The authority who developed Bohnalite

BOHN ALUMINUM & BRASS CORP., DETROIT, MICH.
New York Chicago Philadelphia Cleveland Pittsburgh

62% LIGHTER THAN IRON

19 out of 30 American Records

Johnson ***SEA-HORSES*** *have overwhelmingly proved their superiority by establishing 19 of the 30 Official American Records*

including

World's Fastest Outboard Time

47.288 m.p.h.

Made with SEA HORSE 32—Class D Mile Trials, Division II, at Balboa, Calif., June 15, 1929.

Fastest Time With Class "B" Motor

40.63 m.p.h.

Made with SEA HORSE 16 in Class C Competition, Division II (6 mile event), Lake Elsinore, Calif., July 28, 1929.

A **If you want *speed*, plus *dependability*, plus *Underwater Exhaust*, plus *Release Charger starting*, you'll want**

SEA-HORSE of Course!

JOHNSON MOTOR COMPANY, 3391 PERSHING ROAD, WAUKEGAN, ILL.

IN CANADA: Canadian Johnson Motor Co., Ltd., Peterborough, Ontario. Distributors for British Columbia: Hoffar's Ltd., Vancouver, B. C.

MOTOR BOATING, September, 1929. Volume XLIV, No. 3. Published monthly at 57th Street at Eighth Avenue, New York, U. S. A., by International Magazine Co., Inc. Yearly subscription price: United States, $3.00; Canada, $3.00; Foreign, $4.00. Entered as second-class matter April 15, 1925, at the Post Office at New York, under the act of March 3, 1879. (Printed in U. S.A.)

"I'm too old to use anything but the BEST!"

A smokestack black that *stays* black!—

VISION a veritable thicket of smoke stacks rising from yachts, cruisers and tramps down in the yacht basin. Look closely and you will see only one stack here and there that stands out smartly from its neighbors—a stack that has been painted with EDWARD SMITH SMOKE STACK BLACK—the black that *stays* black . . and stays *on* . . regardless of weather conditions. Use it wherever there is hot metal to protect and beautify. Also made in a handsome buff. . . and the buff stays BUFF! Always insist on EDWARD SMITH finishes—the famous line backed up by 101 years of knowing how to translate ancient HARDFOSSIL GUMS and first grade oils into paints and varnishes that will stick with you, in and out of port. At all good dealers and marine supply houses. Send for literature and color charts.

E D W A R D

SMITH

& COMPANY

Makers of Marine Paints and Varnishes since 1827

Long Island City

New York

BOTTOM GREEN · DECK BUFF · AQUATITE SPAR · SPAR COATING

There's a Smith Paint and Varnish for every Marine Purpose

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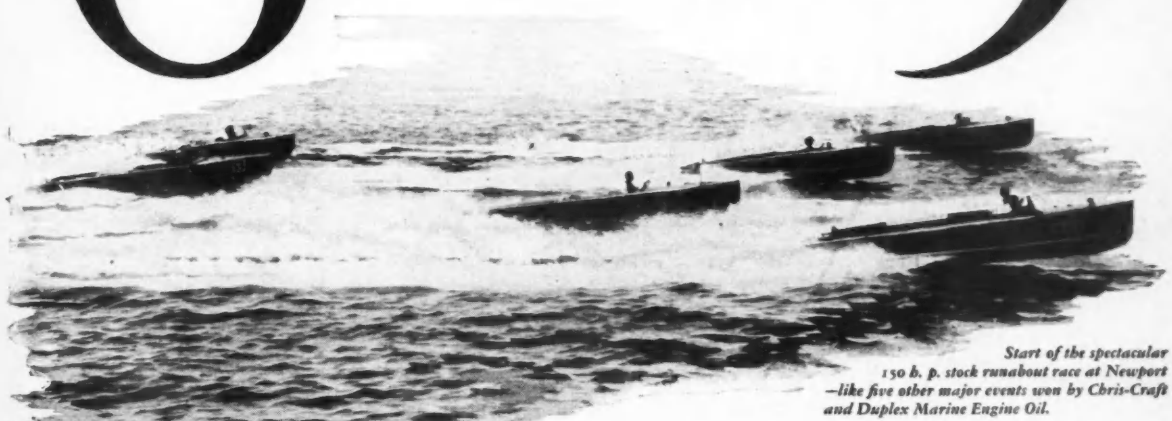
6 out of 9



Start of the spectacular 150 h. p. stock runabout race at Newport —like five other major events won by Chris-Craft and Duplex Marine Engine Oil.

for Chris-Craft

WORLD'S LARGEST BUILDERS OF ALL MAHOGANY MOTOR BOATS

and DUPLEX MARINE ENGINE OIL

Duplex Marine Engine Oil is specified not only by Chris-Craft but by *85% of all fine standardized boats.*

AT NEWPORT, R. I., on August 2nd and 3rd, Chris-Craft established a racing record so magnificent that Duplex Marine Engine Oil is more than proud of the part it played, and is deeply honored by its continued exclusive use by Chris-Craft.

Chris-Craft competed in all events open to them . . . nine in all. Chris-Craft won 6 firsts, 3 seconds, and 3 thirds. *Not one single case of a semblance of engine faltering.*

And . . . in the Free-For-All for the Lady Astor Cup, the winner was Mrs. Bernard Smith driving a 26' Chris-Craft powered with the spectacular Chris-Craft marine motor designed and manufactured in the Chris-Craft shops.

Chris-Craft honors Duplex Marine Engine Oil by its continued use, and Duplex quality has never broken faith.

ENTERPRISE OIL COMPANY, INC.

Established 1884

BUFFALO, NEW YORK

Wholesale Distributors in Boston, Chicago, Cleveland, Detroit, Houston, Miami, New York, Palm Beach, Philadelphia, San Francisco, St. Louis, Vancouver and Wilmington (Calif.) Dealers wherever boats float.

The REDWING

—a 66 ft. Commuter built by Consolidated for Mr. G. Beekman Hoppin of New York City. Powered with two 170 h. p. Speedway engines. Speed 22.02 miles per hour.

COMMUTE by WATER in 1930

Prepare for Yachting's Banner Year.... Place your order NOW for Spring Delivery

Hundreds of busy executives have turned from dusty, traffic-choked roads to this refreshing mode of transportation. Plan now to enliven *your* business days next year through the bracing, mind-stimulating joy of water travel.

The Consolidated Commuter represents a sound, practical investment in good health, efficiency and pleasure. Years of careful service are built into its sturdy, graceful hull . . . home-like comfort distinguishes its luxurious equipment. And the Consolidated-built Speedway engine which sends this fine craft so swiftly and so silently over the waterways is a supreme achievement in power plant design and performance.

CONSOLIDATED SHIPBUILDING CORPORATION

ESTABLISHED 1885

We invite you to consult with us and inspect the boat now in process of building.

CONSOLIDATED SHIPBUILDING CORPORATION

MORRIS HEIGHTS · NEW YORK

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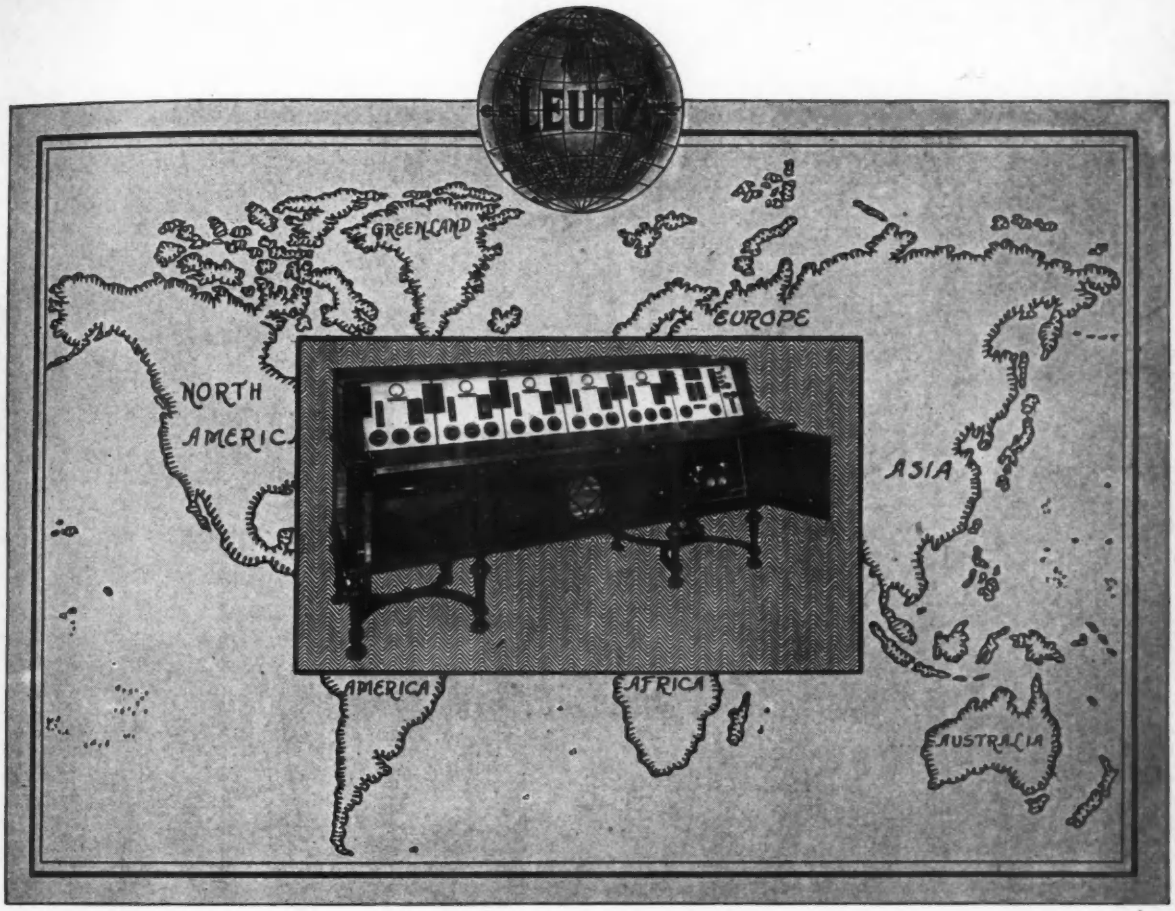


World Wide Reception

THE nine-tube Silver Ghost, incorporating four stages of tuned, screen-grid radio-frequency amplification, with a power detector, two stages of audio amplification and two-tube power stage, is without question the finest receiver for marine or residence use. Under favorable conditions the Silver Ghost's range is unlimited, coast-to-coast reception being quite the thing. Owners in Spain report the reception of everything from American stations in the west to Australian stations in the east—literally world-wide. Leutz radios are used on United States battleships and destroyers.

Built in a handsome console, with an electric phonograph, the Silver Ghost provides a dependable source of music, news or entertainment afloat or ashore. Being custom built the Silver Ghost naurally costs more than commercially built receivers.

C. R. LEUTZ, Inc.

Altoona, Pa., U. S. A.

Cables: "Experinfo" New York

Sales Offices in New York and Los Angeles

Complete Literature on Request

From Every Angle— the SEA-LYON *"45" Is the Outstanding Boat of the Year*

JUST as the lovers of fine horses appreciate the good points of a highly bred racehorse, those who know boats find in the Sea-Lyons that rare balance of speed, beauty and stamina that marks a throughbred.

Six Models—$2975 to $30,000 f. o. b. New York

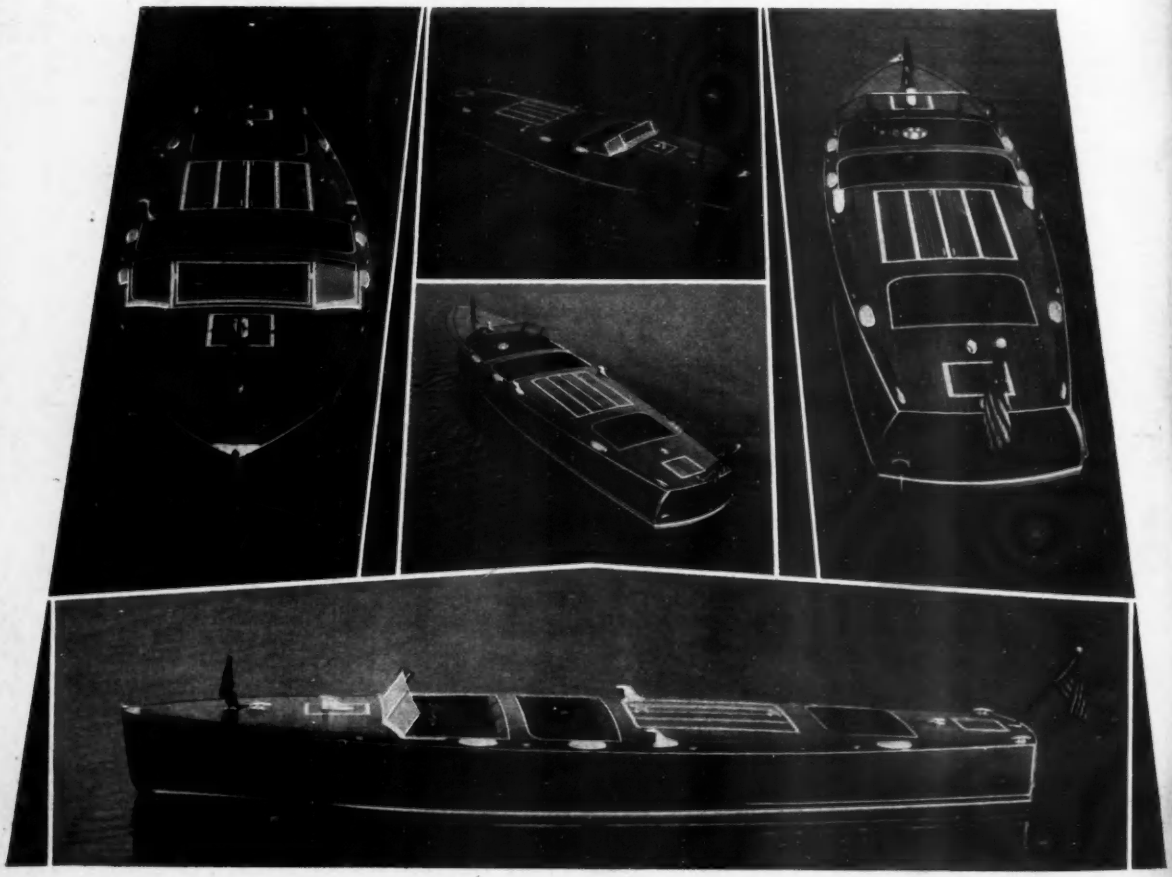
Write or phone for demonstration appointment.

HOWARD W. LYON

HOTEL BARCLAY INCORPORATED **NEW YORK**

532 Lexington Ave., (at 49th Street) Telephones: Vanderbilt 4445-4446

Plant and Service Station: City Island 1645-1644



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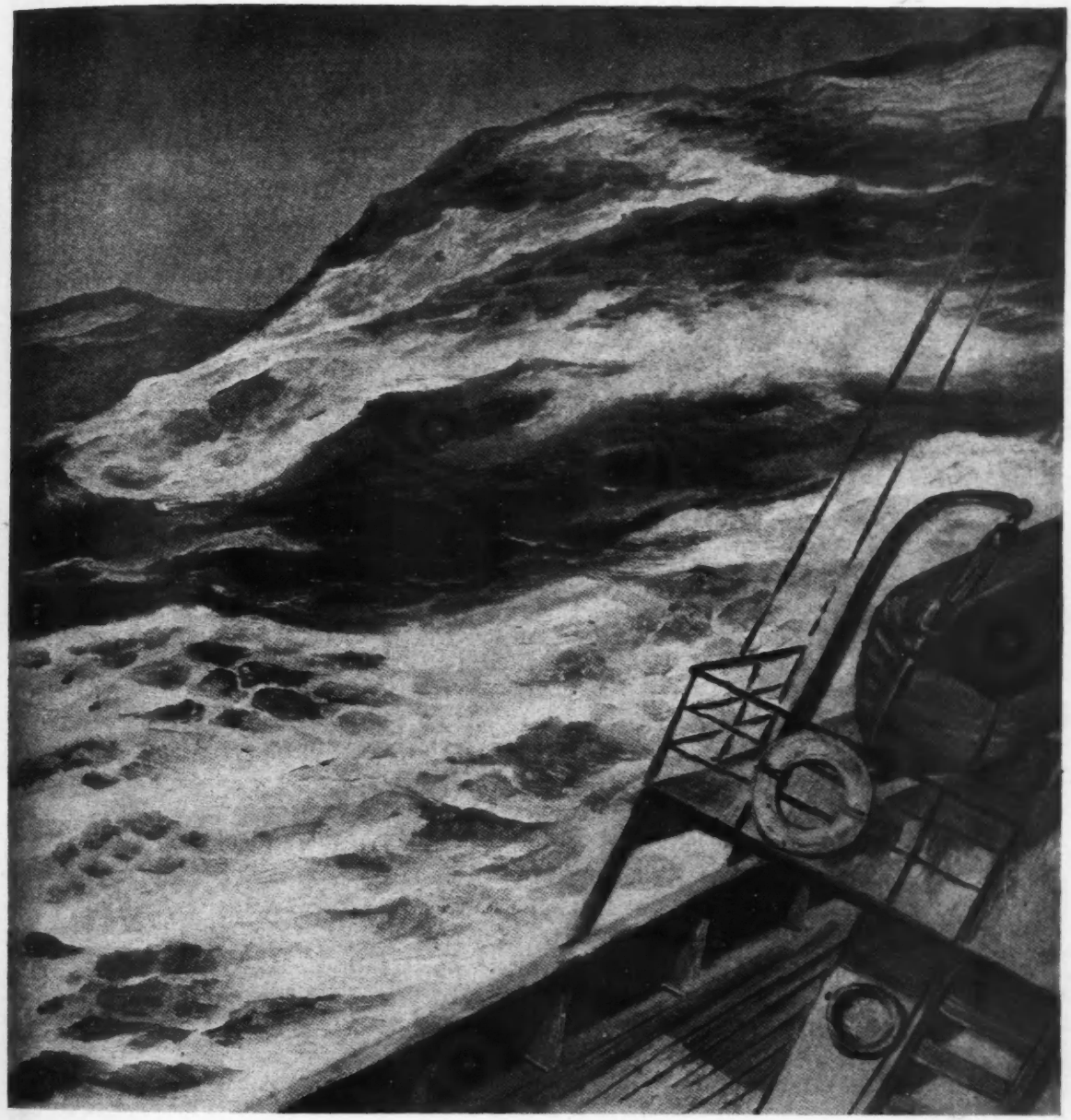
WHEN THE SEAS RUN HIGH

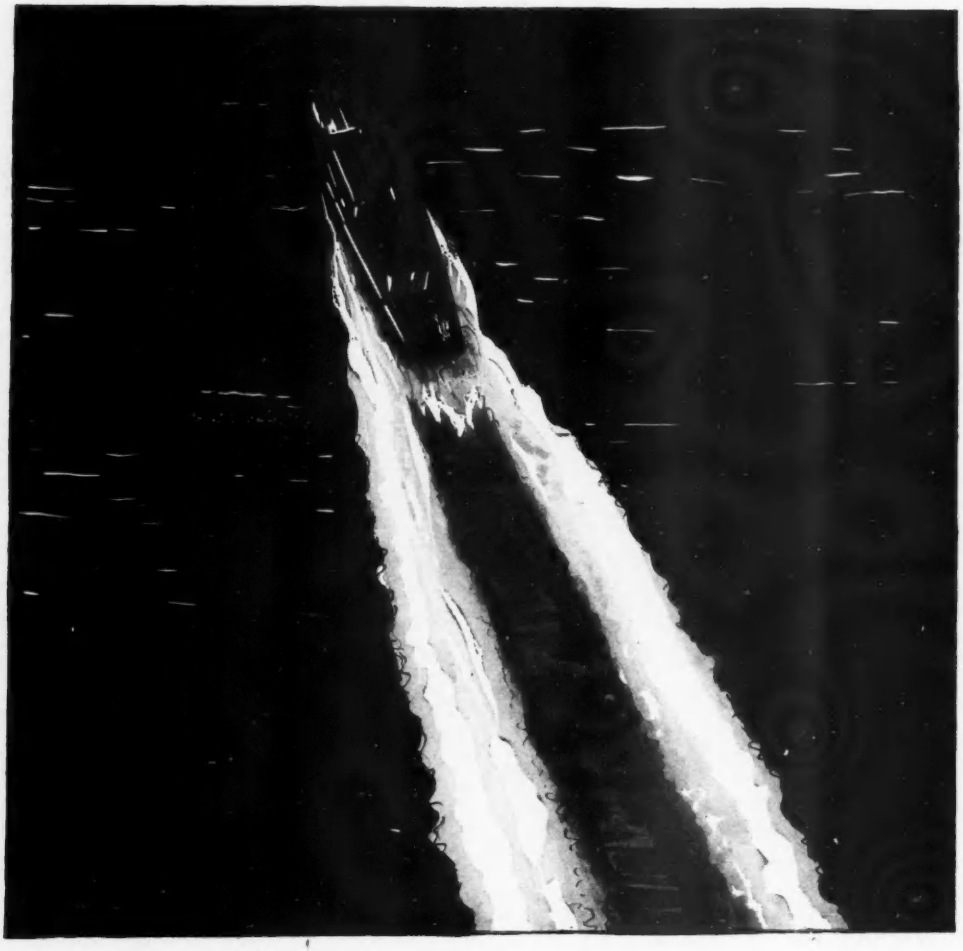


WHEN you are far from port . . . and the barometer drops to 29 . . . and a gale lashes the sea into a raging fury . . . *then* you will be doubly glad that your boat is powered with a Bessemer engine! With a Bessemer diesel power plant you have the quiet smoothness of vibrationless power plus the stamina and reserve of power that never falters, never fails, in the emergency . . . . . .

BESSEMER
DIESEL MARINE ENGINES

THE COOPER-BESSEMER CORPORATION
Diesel Engine Division, 23 Lincoln Ave., Grove City, Pa.
Special Yacht Representative, EARL H. CROFT, INC.
23 West 43rd St., New York, N. Y.

ACROSS THE SOUND FOR A DINNER GUEST



IN GREENWICH a phone rang at 6:20. Oyster Bay gave a sudden invitation—which was accepted out of hand!

Sixty miles separate the two towns on the crowded motor highway. Ten miles part them on the salt Sound water. Yet the guests from Greenwich arrived for dinner at Oyster Bay before seven o'clock!

For a sleek commuting cruiser had sped across the Sound, touched at Greenwich, and was back in Oyster Bay after less than 35 minutes of smooth and speedy travel!

Few men can own such a servant as the boat we speak of—and parenthetically, few men would want to. But the man who owns this commuter comes to his office in peace and tranquillity—he enjoys the beauty of the country and the bustle of town without wear and tear upon his time and physique. He can call upon it for a sudden trip across the Sound for dinner guests. He can use it in his moments of leisure. But most of all, it is the conjunction that permits him to live the double life of a man of affairs in the city and a man of peace in the country.

And he does this quickly, quietly and certainly—for his commuter is powered with a Wright Typhoon.

WRIGHT TYPHOON

Address inquiries to Marine Engine Division

WRIGHT AERONAUTICAL CORPORATION

Paterson, New Jersey

Advertising index will be found on 3rd last page

THE LUDERS 72
Luxury That Compels Attention

A REFRESHING shower... hot or cold... tea on deck... a comfortable chair... your favored friends... and first thing you know, the city is far behind. That's the Luders 72, a luxurious cruiser... a fast commuter.

As complete as your own home, the Luders 72 sleeps six comfortably, has luxurious lounging quarters, galley, bath, crew's quarters, a roomy afterdeck, and, out of sound and sight, the smooth power of her Sterling engines.

Join the Luders fleet. Let us show you plans and specifications now so that you may plan your commuter for next season.

'LUDERS MARINE' CONSTRUCTION CO.
STAMFORD ~~~ CONN.

The HACKERCRAFT "30" for Comfort--Safety and Spirited Performance

Miss Rioco III, owned by James Talbot, designed and built by the Hacker Boat Company, won the Duke of York's Trophy contested for in England.

24-FOOT HACKERCRAFT $3150

26-FOOT HACKERCRAFT $4475

29-FOOT HACKERCRAFT $5150

30-FOOT HACKERCRAFT $5750

Every hull line and contour—every smartly turned fitting—each deft appointment—all those ultra modern features of design bear eloquent testimony to the new and stirring qualities of custom completeness lavished on the 30-foot Hackercraft. A superbly built genuine Honduras mahogany 11-passenger runabout . . . Double planked bottom, copper fastened (not screw fastened) for added strength, longer life and greater security . . . A de luxe model with every modern advantage . . . A boat that brings to boating the thrill of swifter driving speeds, keener maneuvering, the buoyancy of perfect riding balance. This "30" asks no odds—offers no excuses. Its rare beauty, its spirited performance, and its unexcelled racing attainments have already won for it wide acclaim on every hand. Let us send you the Hackercraft catalog and the story of Hackercraft design. Four models 24 to 30 feet—$3150 to $5750.

ON DISPLAY—New York, 5th Avenue at 15th Street; Boston, 1043 Commonwealth Avenue; Philadelphia, 102 South 4th Street; San Francisco, Rialto Building; Detroit, 500 E. Jefferson Avenue; Bay Shore, Long Island, 224 E. Main Street; Wilmington, Calif., 161 Anacapa Street; North Tonawanda, New York; Buffalo Yacht Club, Foot of Porter Ave., Buffalo; Clayton, New York; Grand Rapids, 307 Kelsey Building; Galveston, Texas, 208 23rd Street; Walloon Lake, Oden, Michigan; Port Washington, L. I., 262 Fair Street; Kingston; Baton Rouge, La.; Lakeport, New Hampshire; Portland, Oregon, 325 Pacific Avenue; London, England, 23 Orchard Street, W. I., Mayfair.

HACKER BOAT COMPANY

530 RIVER DRIVE - - MT. CLEMENS, MICHIGAN

AMERICA'S FINEST RUNABOUT

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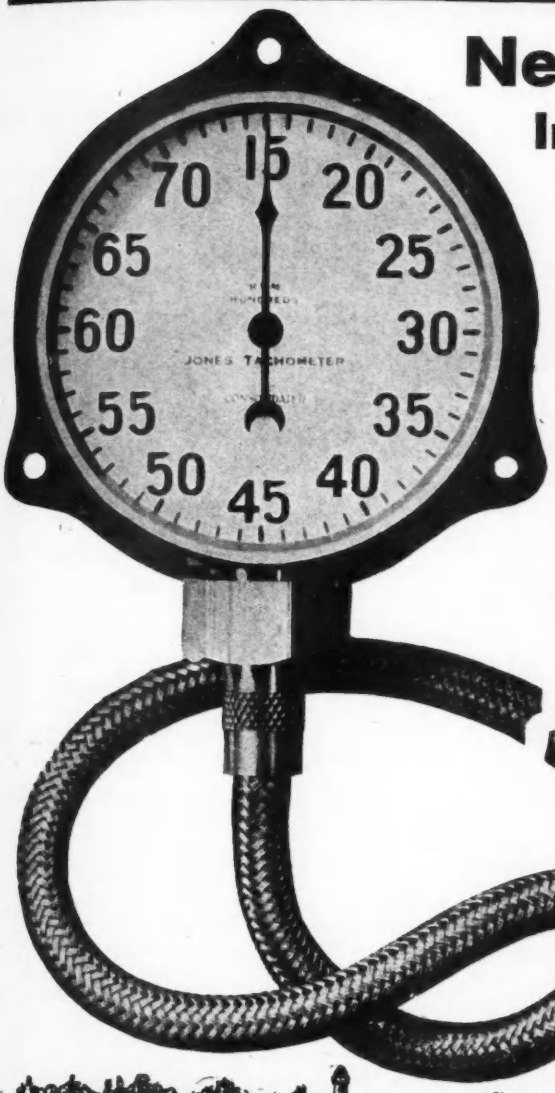
New Outboard Tach
Insures Greater Speed—



This improved outboard tachometer helps keep your motor pepped up to maximum power because it promptly indicates the slightest decrease in engine speed by recording any R. P. M. fluctuation. Whether the cause be a carburetor misadjustment, poor ignition, fouled spark plugs, improper gas and oil mixture, or some other ailment, a glance at this tachometer tells you at once if your engine speed is slowing up.

Consolidated engineers have adapted the famous Jones precision movement employed in finely-adjusted aviation and marine instruments for use in this outboard tachometer at reduced production cost.

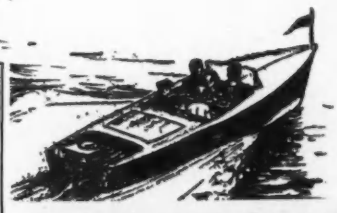
CONSOLIDATED INSTRUMENTS

CONSOLIDATED INSTRUMENT CO. *of* AMERICA, Inc.
305 East 47th Street, New York City

Manufacturing Divisions
Julien P. Friez and Sons, Inc., Baltimore, Md.
Molded Insulation Co., Mt. Vernon, N. Y.
Aircraft Control Corp., Philadelphia, Pa.

Full size illustration shows easily readable large dial with heavy plate cover glass and polished waterproof case. Special mounting plate for attachment to dash — permits easy adjustment, to proper reading angle and removal of tachometer when not in use. Special right-angle type ball bearing motor attachment. Exclusive feature—six feet braided bronze flexible tubing with special process music wire cable.

Price Complete $30.



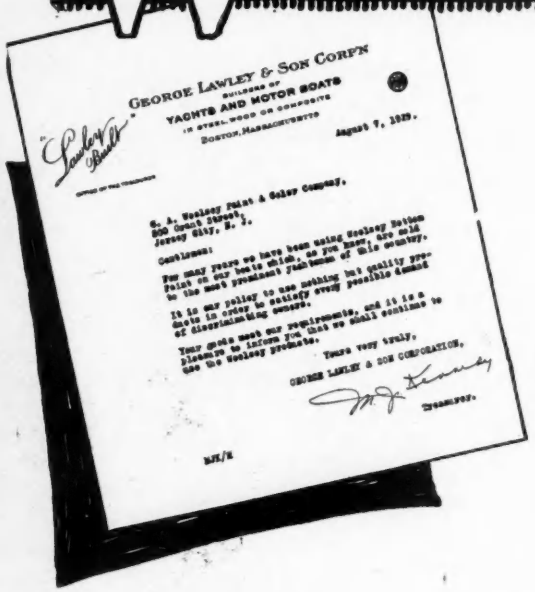
IMPORTANT
Specify motor name and model when ordering.

DEALERS!
Consolidated Instrument Co. of America, Inc.
305 East 47th Street, New York City
Gentlemen: Is my territory still open? If so, please give me full details of your dealer proposition.

Company _____
Street _____
City _____ *State* _____
Per Mr. _____

Discriminating Yachtsmen Demand

Woolsey's


GEORGE LAWLEY & SON CORPN
BUILDERS OF
YACHTS AND MOTOR BOATS
IN STEEL, WOOD OR COMPOSITE
BOSTON, MASSACHUSETTS

August 7, 1929.

C. A. Woolsey Paint & Color Company,
100 Grant Street,
Jersey City, N. J.

Gentlemen:

For many years we have been using Woolsey Bottom Paint on our boats which, as you know, also sold to the most prominent yachtsmen of this country.

It is our policy to use nothing but quality products in order to satisfy every possible demand of discriminating owners.

Your goods meet our requirements, and it is a pleasure to inform you that we shall continue to use the Woolsey products.

Yours very truly,
GEORGE LAWLEY & SON CORPORATION,

TREASURER.

MJK/E

Quality PRODUCTS

Woolsey's Yacht White

Unbeatable for whiteness and wearing qualities. Will not crack, blister, nor peel. Leaves an ideal surface for repainting. Made up in gloss, semi-gloss and flat finish.

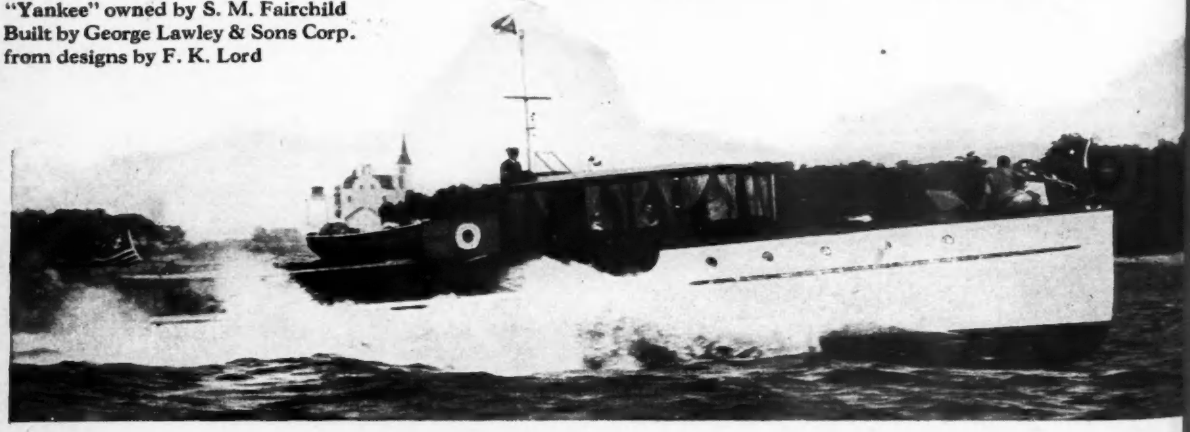
Tungspar Varnish

Will not turn white. High lustre-- Elastic-- Durable --Waterproof. A Particular Varnish--for Particular People.

Copper Best Paint

Gives the smoothest sailing—with absolute protection against fouling by seaweed, barnacles or boring teredo worm.

"Yankee" owned by S. M. Fairchild
Built by George Lawley & Sons Corp.
from designs by F. K. Lord



C. A. WOOLSEY PAINT & COLOR CO.

JERSEY CITY *Since 1853* NEW JERSEY, U. S. A.

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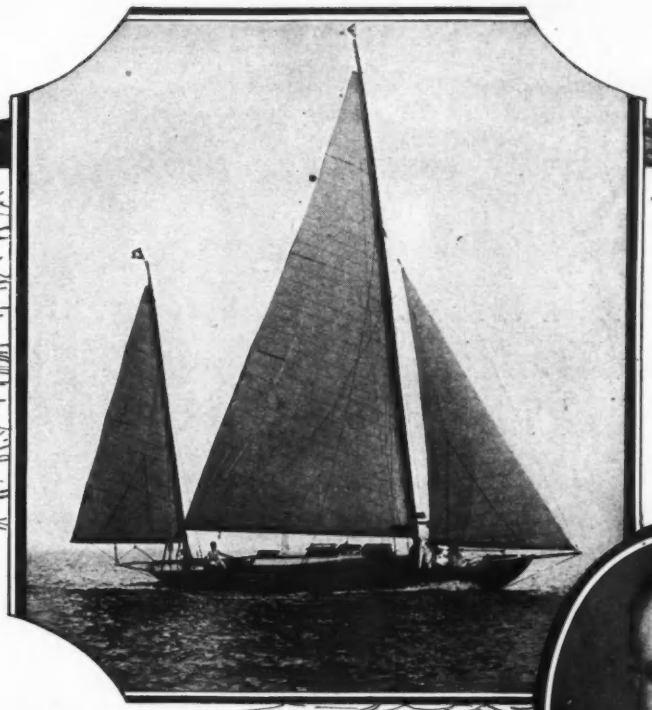


GLEAM
Designed by Ford, Payne & Sweisguth for Mr. C. V. Kozlay equipped with Tobin Bronze.

"TOBIN BRONZE *is always specified"*

Says FRANCIS SWEISGUTH

MR. SWEISGUTH, well known naval architect and yacht designer of Ford, Payne & Sweisguth, has long held that the best of materials are always essential.

"For propeller shafts, rudder posts, lead keel bolts, spar work bolts, struts, etc., and all parts requiring great tensile strength, durability, and resistance to corrosion, TOBIN BRONZE is one metal we never fail to specify. It has always met the requirements of the above items, and does so at a reasonable price.

"Light, fast racing yachts built years ago by the Herreshoffs, the Lawleys, Wood and others are still racing today, while many other heavier and more crudely constructed boats of the same period are out of existence. This proves conclusively that it is not the *amount* of material put into a vessel, but the workmanship, and the kind of material that count."

FRANCIS SWEISGUTH, N.A.

Known from Alaska to Key West as the quality standard for propeller shafting, TOBIN BRONZE, made exclusively by The American Brass Company, is specified by leading architects and boat builders as thoroughly dependable material for propeller shafting and underwater parts. Use time-tested TOBIN BRONZE on your new or remodeled boat.

Trade-Mark "Tobin Bronze" Registered U. S. Pat. Off.

THE AMERICAN BRASS COMPANY

General Offices: Waterbury, Connecticut

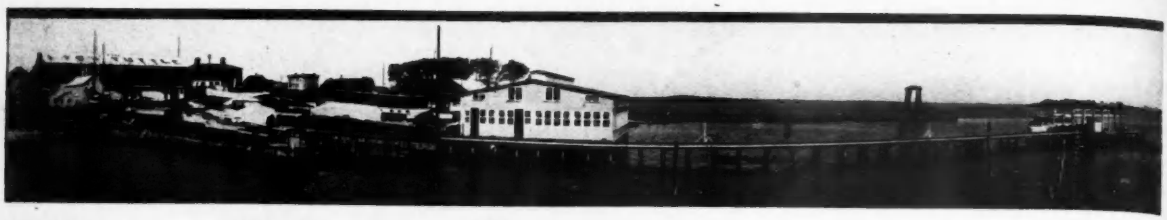
ANACONDA SHAFTING

EVERDUR

Reg. U. S. Patent Off.

When lighter weight without sacrifice of strength is essential, we recommend EVERDUR, an Anaconda alloy of copper, silicon, and manganese. It gives you a shafting with the strength of steel, and maximum resistance to corrosion. Screws, bolts, and other fastenings of EVERDUR are available and are in growing demand by prominent architects, boat builders, and owners.

ANACONDA



When Winter Comes—

You'll Be More Comfortable If You Know Your Boat Is Safely Stored In This Modern Yacht Yard

PICTURE a complete boat yard located within the limits of New York City with every facility and equipment for safely and expeditiously hauling, handling and storing your boat. Where expert hands will prepare it for the winter, with a large staff of competent yacht workers at hand for repairs, overhauling, fitting out and finally, prompt service in putting it overboard on the day you order it next spring.

Lyon-Tuttle Service includes experience, personnel and equipment second to none for storing and overhauling your boat with maximum convenience and safety at minimum expense.

Open and Covered Storage Still Available

A personal inspection of this plant will convince you. It will be a pleasure to show it to you. Write or phone—

THE LYON-TUTTLE CORPORATION

King Street, City Island, New York City

Telephones: City Island 1645-1646

SHOWROOMS

HOWARD W. LYON

INCORPORATED

HOTEL BARCLAY 532 Lexington Ave. (at 49th Street) *Telephones: Vanderbilt 4445-4446* **NEW YORK**

SEA-LYON RUNABOUTS

Advertising index will be found on 3rd last page

Judges at the Newport Regatta, Commodores Thorner of Buffalo, Beck of Newport and Rogers of Washington

MOTOR BOATING

FIFTY-SEVENTH STREET
AT EIGHTH AVENUE
NEW YORK, N. Y.

SEPTEMBER, 1929

Vol. XLIV, No. 3

Edited by

CHARLES F. CHAPMAN

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OUR COVER THIS MONTH

by GIRO is an ancient Chinese Junk.

From available authentic information on the subject, a decoration of one of nine birds on the stern of each vessel designated the name of the owner, and whether pleasure craft or merchantman. A war vessel would carry a quadruped painted on the stern.

Chinese Folk Stories and myths do not speak of a gradual evolution of their boats but of their invention by Emperor Hwang-ti about 2700 B. C. Leaves floating on water suggested the idea.

Those who have investigated believe the Chinese took the lead on adventurous voyages to distant shores.

Published monthly by the International Magazine Company, Inc., at 57th Street, at Eighth Avenue, New York City.

Ray Long	Thomas J. White	Austin W. Clark	Arthur S. Moore
President	Vice-President	Treasurer	Secretary

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WHAT'S IN A NAME

By E. MURRAY LOMBARD

WHY do they call a ship "she"?

If you ever tried to steer one you wouldn't ask.

Because it takes so long to get them ready to go anywhere.

They need almost as much dolling-up and painting as any woman you ever saw.

A ship's gotta have its own way or it won't go.

Ships always come off the ways backwards like the members of a certain sex when alighting from street cars.

It costs so much to keep one in operation.

Because shipbuilders can't live without them.

Because they are held together by steel.

Who ever won an argument from them?

The old SALT knew his eggs all right, but before we ever heard his reasons why they're a SHE we always noticed that most of these here racers are called MISS; from left to right, MISS PEERLESS, MISS BUFFALO, MISS STERLING, MISS NEW YORK, MISS SWIFT, MISMIT, MISS HOPE, MISS MISSISSIPPI, and seein' as they do nothing ELSE but—why not christen one of those hydros MISS FIRE? SNOOZER don't sound like record breaking engine performance. And there is one named WILDFIRE which we think is taking something for granted—that she FIRES at all! But there IS some that is HOT stuff, right up in the front row—DREAM GIRL—third from the end, doesn't conceal that she's built to standard specifications, either. And do they need almost as much DOLLING-UP and painting as any WOMAN? We seen an ol' rejuvenated wind jammer sporting the freshly painted name FLAPPER an' the Captain says, "Wal, I named her that because she's alluz havin' to be painted, her topmast is LOOSE, an' it's hard to keep any riggin' ON her!"

The wise old bard with a rep for havin' a large size vocabulary said, "What's in a name?" We don't know the answer, but it sure took an African Golfer to dub his old tub SEVEN ELEVEN. Which is some moniker for a sailing ship, an' we bets the water rolls offa her back like bills OFFA bank roll in a game of gallopin' dominoes. BONE DRY would at first appear to be a scofflaw, though she might be just plain seaworthy. JADA suggests she's the latest model jazzabout, and regardless of the SEX question these babies here sound FAST, NINE NINETY-NINE, PASS'ER BY, BABY SPEED DEMON, ARAB, DO SHE GO, OH MIN, BLACK DIAMOND, FLEETWOOD, P. D. Q., PEP, GEE WHIZ, GO GET 'EM, SURE SWIFT, FLYALONG, an' COMET, METEOR, an' SHOOTING STAR are super hydros.

SEAVILLA is a catchy handle for a little cruiseola. We think WATER WAGON shoulda been a coast guard, but GREYHOUND is the truth—we're not razzin' the police department, though you stand a chance of getting wet up a bit on ROUGH RIDER, SEA SCRAPER, SEA BROTH, OVER THE TOP, HURRICANE, DISTURBER, and LITTLE DIPPER. The last mentioned is a SHE an' right here we'll say LITTLE DIPPER is one of the prettiest Simon-pures our lamps ever spotted.

"If you ever tried to STEER one you youldn't ask." ROMER, WIG WAG, RESTLESS, IMP, KRAZY K A T, WHIRLWIND, HOPALONG, ONWAY, SKIPAWAY, BOB-ABOUT, SKIDOO, and VAMOOSE suggest personality plus. Something different is one's like VIAWATER, ANKLE DEEP (one of yesterday's), IDOLOUR, COCKLESHELL, GOLDEN DAYS TOO (a keen way of sayin' II), BLACK WATCH, UNDERTAKER, NUTMEG is made of wood and once mighta been called the Greater Connecticut—(though the latter type of name is so rare it doesn't exist).

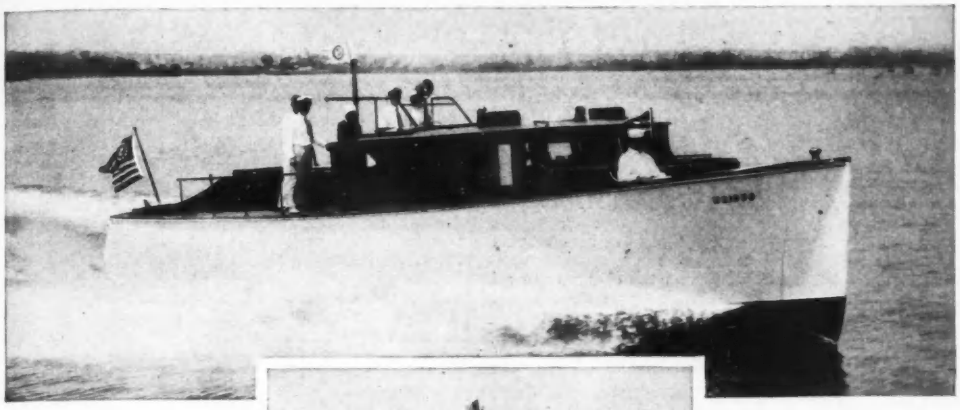
The first was a big express cruiser, and ANKLE DEEP was once the fastest in the world, but slow compared with any of the MISS AMERICAS. The Gold Cup will be awarded to the motor boat bug who can guess who's the owner of BABY GAR, W O O D F I S H, GREENWOOD and WOODFLY. The patriotic names are few, we've already mentioned one and U. S. A. and YANKEE DOODLE about complete them.

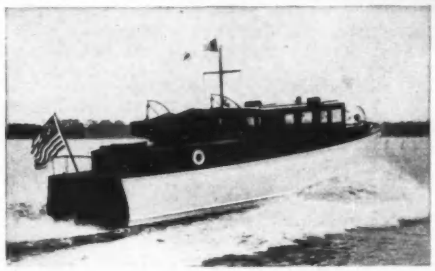
More popular are the little ones: WEE TOT, BABY CUB, BABY BEAR, BABY BOOTLEGGER, BABY RELIANCE, W A T E R BABY, TAR BABY, WAR BABY, ATTA BABY, BABY JUNE. How the so ever one guy musta believed the crack about how there's only two good women in the world—one dead and the other can't be found. At least BULL CALF is NOT of the so-called weaker sex, no matter what a ship's supposed to be. SONNY BOY, BUD, ATTA BOY and HARD BOILED EGG don't put the gender quite so strong. And very suitable for a dinghy is PETEY DINK (with the usual apologies to our cartoon friend). If IOU was custom built the owner probably parted with more good simoleons than he had at first intended. Maybe ACE, WINGOLD and E-Z $ bring home the bacon. But try an' KEEP it when there's a pirate fleet manned by a crew of gold-diggers in one-piece bathing suits chasing us in, JOLLY BEGGAR, CAPTAIN KIDD, YO-HO-HO, HO-BO and BALLAHO.

It sure costs SO much to keep one in operation and yet we couldn't get along without 'em—PEACH BLOSSOM, MISS BROADWAY, SALLY-IRENE-MARY, BABY DOLL, PAL O' MINE, ALL HOURS, PEERLESS IRENE, VAMP, TEASER, ALLURE and SURPRISE.

The iron keels are representative of SEA GIRL, SEA LOVE, SEA CALL, MINNIE MEOW (a cat, no doubt), KALICO KAT, SEA MEW, POLKA DOT, WHITE CAP, SEA URCHIN, EVENING STAR, SEA PUP, SEA KID, SEA HORSE and SEA HOUND. Looking backwards we remember SCARAMOUCHE, MUSKETEER, OREGON KID, APACHE, CHIQUITA. Perhaps there's a meaning in UNDERTAKER, PIPE D R E A M, SNEEZE, GASSY LENA, SNORTING LIZ, GUNFIRE, DUSTY, DARTAWAY, LAZY LADY, SLOW POKE, SPLASH and E-NEE-MO (you never can tell)! I guess CIGARETTE and LUCKY STRIKE are those ones that BURN up at every regatta.

Shipbuilders can't live without them—MISS MARGARET, MISS JANET-VIRGINIA, MISS WHOZIS, CHUM, MISS NEW YORK, MISS PACKARD, and if you haven't found one yet we desperately suggests YOU'LL DO or ANY-OLD-THING. After going through a list of over a thousand yacht names we moralize that there's only one thing HARDER than building a boat and that is christening it these VOLSTEAD days!





THESE NEW 1930 FEATURES
-Give You a Boat You'll be Proud to Own

Beauty has been glorified—caught up—crystallized in the new Fairform Flyer models for 1930. A new order of beauty has deftly touched the fine sweeping flares and contours of the hull. Already beyond compare—beauty has elevated existing cabin appointments to new heights of comfort, luxury and privacy. New beauties grace the perfected riding balance and poise of these fleet, swift sea boats. Slowly and carefully developed—these masterful craft now reveal a technique and originality of design that boldly proclaims the dawn of a new day in cruiser and commuter refinements and speeds. Orders placed within the month will insure late fall and early winter deliveries. Visitors to the Huckins plant by land, air or sea are always welcome.

HUCKINS YACHT CORPORATION

JACKSONVILLE FLORIDA

The Twin Screw

Fairform 45 *Flyer*

STANDARD SPEEDS UP TO 30 MILES PER HOUR

WHY THE HYDROPLANE PLANES

By BRUNO BECKHARD

An Interesting Discussion in Understandable Language of the Reasons for the Form and Steps in Boat Bottoms and How They Influence its Motion

WE are supposed to live in a more or less mechanically inclined age and yet there is surprisingly little provision for that modicum of technical education that we require for the selection of the mechanical devices that have become part of our daily life. If you fling a well chosen group of scientific sounding words at almost any sort of person the chances are all in your favor that rather than risk suggesting that he does not know what you are talking about we will accept your statement at your own valuation.

I get a certain amount of amusement out of the not uncommon method of using a certain thought in an advertisement, repeating it in the circulars that are sent to anyone that shows the slightest interest, and then reading it or telling it as a clinching argument —without regard to whether it means anything or not. It is of course a perfectly legitimate method—but it is not always complimentary to the public.

It is equally legitimate to recognize the fact that sex appeal sells automobiles, that those details of finish that appeal to the ladies are as potent as the details of mechanical perfection—but here we have in the background that well known theory of enlightened self interest—which means that the manufacturer for his own protection must give us something very close to standard performance. At the worst his shortcomings mean merely a few dollars less on the trade in value of the car we buy.

The reason that a boat is not like other merchandise nor yet like an automobile is the same reason that makes you feel differently about the medicine you buy at the prescription counter and what you get in the rest of the drug store. The things you buy out front are the things that you can leave to your own judgment. You may be disappointed, you may even be mistaken, you may be seriously inconvenienced—but you have only to guess again, or refrain from guessing again as the case may be. But if you seriously need something from the prescription department—and I suppose we have to distinguish between business and pleasure—you do not want to do any guessing nor do you want anyone else to do any guessing. Your druggist shares with your doctor a vital responsibility.

This same sense of responsibility is inherent in every boat building establishment worthy of the name. Unfortunately however in the rapid expansion of the industry it has been necessary to assume that the buyer would be sufficiently familiar with his own requirements to consider only the boats suitable for his use—in other words we have assumed a general technical education without inquiring into the nature of that education.

A recent visitor who was having his first cruiser built told me that he had been interested in boats for years. When he was young, he said, he read the boating papers religiously—and then—he bought a canoe. It was all he could afford at the time. Now I have no doubt that a man could get a very liberal education from following the boating papers for a number of years, and there are countless examples of men who have gone from this beginning to building a boat of their own, but there are so many matters to be considered, so many details that are open to research that the effect is much the same as giving a man a group of films and telling him that in their original forms they made a motion picture.

Nothing could better illustrate the sad state of our education in the matter of small pleasure boats than that I should so frequently be referred to as an expert or an authority. It took me sometime to get used to this—until I realized that in a few short years I had had more opportunity to study the application of varying power to various hulls than had been granted to the old line naval architect in a lifetime.

Even so I was hopelessly at sea. It was a sea of technical terms whose meaning was no more than faintly comprehensible. Having nothing to lose I even ventured into print with so simple a question as, What is a hydroplane? Well of course everybody knew what a hydroplane was and could quote good authority—but nobody ever answered my question. Now the peculiar thing about this whole field is that not only do we find the same jargon from top to bottom but we find the same questions, the same failures to understand from bottom to top. It is not surprising to find a man with no boating experience admiring a trick hull that completely ignores so simple a requirement as being able to get at the motor to start it. It is almost impossible to believe that an experienced naval architect is responsible for such a design, but it might happen, anything might happen—once. But when a still more experienced, still better known naval architect makes exactly the same mistake a few months later—is there anything to do but laugh? I don't know—but I'm going to try. I am not going to try to cover the whole field in detail—but I do believe there is a basic common sense explanation of what happens when a boat is propelled by a motor, that it does not depend on any very difficult terms, and that an understanding of these simple matters will help in reducing the importance of some attractive but quite essential selling points.

Before we turn to the water I am going to ask you to get out the old bus and let me show you a new concrete highway that the State is putting down. It has not progressed quite far enough to reach us yet and we have to follow the old pike for a short way. Just before we come to the new construction we have to go through a stretch of deep sand. Maybe this has happened to you before and you know therefore that if the sand were only a few inches deep we could make better going of it with a heavier car, because then the wheels would go right through to solid ground—but since the sand happens to be pretty deep we are better off in this light car. Getting pretty hot, but we're nearly through. There we are—on the concrete. Now we have something under us and the old bus sure can travel.

Now one reason I wanted to take you out this road is because it leads to a pretty good swimming hole and I want you to give a thought to the time when you learned to dive and when you learned that although water was supposed to be fluid if you made a poor dive the water struck you as being remarkably like a solid. Just tuck this in the back of your mind for the present.

Well, now let's get to the water. Let's forget about cars and all things modern and go back a couple of thousand years to a rather primitive individual who finds it important to get himself to the other side of a legendary stream. Fortune favors him; on the bank above the river lies a fallen log. It is too heavy for him to lift but he can manage to roll it into the water and the log lies on the water much as it formerly lay on the ground. Looking back he can see just where the log lay—there is the hole it occupied. But when he moves the log on the water no such hole is discernible. The hole where the log was is filled with water—and to all intents and purposes the log now occupies the space that was formerly taken up by the water that has gone to fill up this hole. Our jaunty mariner now straddles his log, points it toward his desired goal and with his hands or some sort of a paddle pushes water toward the back of the log. Note that the water continues to carry the log and that our hero does not propel the log but that his energy goes entirely to moving water from in front of his craft to a position in back of the log. He is in effect digging a hole in front of him and filling a corresponding hole behind him, but the important thing is that he is not so much moving a certain amount of log, as moving a required amount of water.

Centuries later another bold brave sailorman discovered that by taking off some of the part of the log that was going to be under water—by making it flatter—the hole he would have to fill with water would not be so big—whereupon some competing naval architect went him one better and by shaping the ends of his boat made it much easier for the water to get from before the hull to its desired position aft.

These two major improvements resulted in two important characteristics that are reasonably familiar to all of us. The flattened model is not at all sensitive to changes in weight within the hull but rocks with every motion of the water. The shaped model on the other hand reacts to slight changes of weight or balance in the load but is not nearly so sensitive to the action of the water. Many small boats are developed locally—always have been—and the degree in which they tend to be round or flat is largely a matter of local water conditions, modified by the type of load to be carried, and sometimes still further modified by peculiar landing or storage conditions. It is extremely interesting to check up the various types of canoes, dories, rowboats and small power boats in relation to the native conditions that brought them into being but we cannot go into the matter here. Suffice it to point out that many details are purely local developments—not unlike those differences of dialect that give a word different sounds but no different meaning in various sections of the country.

It is of course possible to think of a boat as a wedge we are driving into the water, or to consider it as one with the water that flows into the hole we create in front of the hull but our effort still is directed to moving water into the hole left behind by the boat.

When we install some sort of motor we add a definite weight in order to move an increased amount of water. Right here we run into the problem that is most perplexing to the layman. It is his idea that an increase in power naturally means an increase in

(Continued on page 72)

WINTON

THE new yacht *Saga*, illustrated below, was designed by Cox and Stevens, and built by Julius Peterson, for Mr. Charles Payson, of New York City. With an overall length of 88 feet, 9 inches, and speed of 18 statute miles per hour, this boat is an excellent illustration of the greater power and speed now available in small Diesel-powered yachts, without any sacrifice in dependable seagoing qualities.

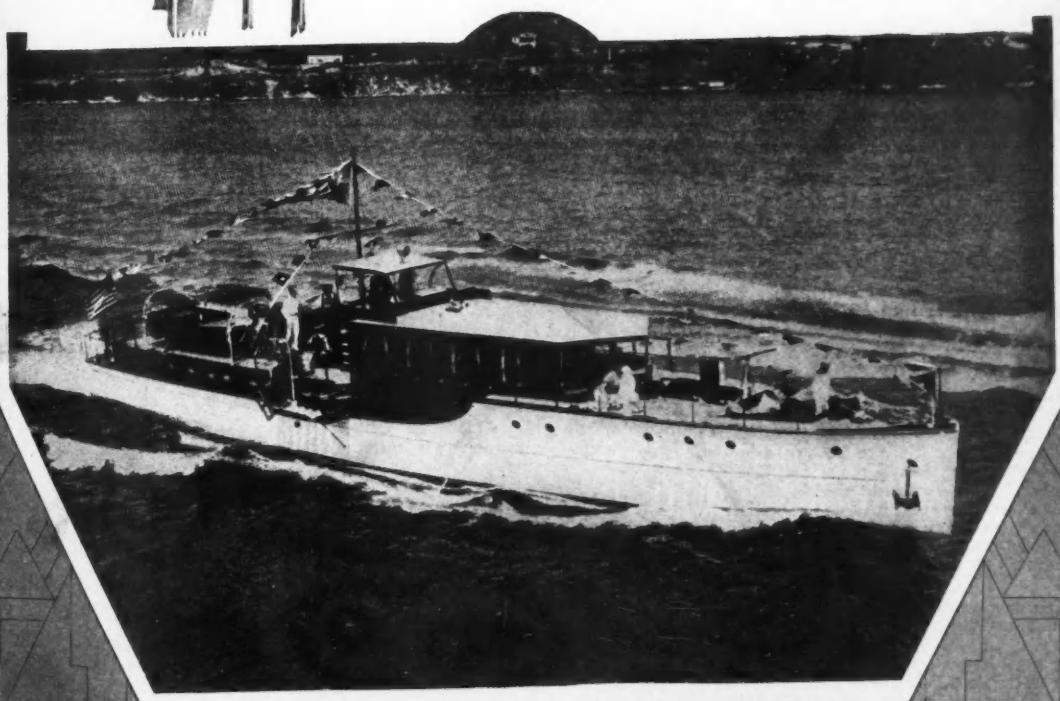
The *Saga* is powered with two eight-cylinder, light-weight, high-speed, compact, Winton-Diesel Engines — total 600 h.p.— an ideal power plant for a modern yacht of this size.

New-type Winton-Diesel Engines, designed and developed, in various sizes, expressly for yachts of 100 feet or less in length, open new vistas of enjoyment for the owners of such craft, insuring, as never before, a good turn of speed, with all of the other advantages of a modern Diesel power plant.

Comfortable, fast, smart in appearance, the small yacht of today, when competently designed, *and powered with New-type Winton-Diesels*, is a superb creation, with vastly improved facilities for pleasurable cruising.

THE WINTON ENGINE COMPANY

CLEVELAND, OHIO, U. S. A.



AMERICAN MOTOR BOAT RECORDS

Mile Trials
(Average of 6 One Mile Runs)

Miss America VII, owned by Gar Wood, at Miami Beach, Florida, March 23, 1929. Built by Gar Wood, Packard motors. Speed 93.123 m.p.h.

Gold Cup Class

625 cubic inch displacement boats

Fastest heat (3 miles) Hotsy Totsy, owned by Caleb Bragg, Greenwich, Conn., 1927. Time, 35:06:83; speed, 51.261.

Fastest lap (3 miles), Imp, owned by Richard F. Hoyt, Manhasset Bay, 1926. Time, 3:22; speed, 53.58.

Total race (90 miles), Greenwich Folly, owned by George H. Townsend, Greenwich, Conn, 1927. Time 1:51:34.21; speed, 48.39.

(Unlimited Hydroplane)

Fastest heat (30 miles), Miss America, owned by Gar Wood, Detroit, 1920. Time, 25:44; speed, 70.0.

Fastest lap (5 miles), Miss America, owned by Gar Wood, Detroit, 1920. Speed, 71.4.

Total race (90 miles), Miss America, owned by Gar Wood, Detroit, 1920. Time, 1:28:07; speed, 62.0.

Detroit Sweepstakes

Fastest lap (3 miles), Packard Chris Craft 11, owned by Colonel J. G. Vincent, Detroit 1925. Speed, 58.95.

Total race (150 miles), Packard Chris Craft II, owned by Colonel J. G. Vincent, Detroit, 1925. Time, 2:41:47.10; speed, 55.65.

British International Trophy
Unlimited Hydroplanes

Fastest heat (38.1 miles), Miss America I, owned by Gar Wood, England, 1920. Speed, 61.5.

Fastest lap (5.75 miles), Miss America V, owned by Gar Wood, Detroit, 1926. Speed, 72.70.

24 Hours

Rainbow IV, owned by Harry G. Greening, Lake Rosseau, Canada, October 2-3, 1925. Total miles, 1218.88. Speed, 50.78.

1½ Liter Class (Trial Runs)

Newg, owned by Miss M. B. Carstairs, England, March 12, 1927. Speed, 39.45.

In Competition, Little Spitfire, owned by J. H. Rand, Jr., Detroit, September 3, 1927. Speed, 42.17.

151 Class—Unlimited

1-mile straightaway, Spitfire V, owned by J. H. Rand, Jr., Albany, N. Y. July 5, 1927. Speed, 62.82.

In competition, Spitfire V, owned by J. H. Rand, Jr., San Diego, Calif., December 12, 1927. Speed, 55.42.

One lap in competition, Miss California, owned by Loynes-Harris, San Diego, Calif., December 12, 1927. Speed, 59.68.

151 Class Limited

In competition, Miss California, owned by Dick Loynes, at Sarasota, Florida, March 8, 1929. Speed, 49.20 m.p.m.

Mile trials, Miss Rioco, owned by J. A. Talbot, Miami Beach, Florida. March 19, 1928. Speed, 50.60.

340 Class

Miss California, owned by Loynes-Harris, Houston, Texas, July 2, 1927. Speed, 50.99.

510 Class

Miss Houston IV, owned by Frank H. Robertson, Louisville, Ky., July 5, 1926. 10 miles—in competition. Speed, 51.28.

7⅛ miles, Miss Kemah, owned by Henry Falk, Houston, Texas, July 4, 1927. Speed, 53.41.

One Mile Trials—Miss Houston IV, owned by Frank H. Robertson, Louisville, Ky., July 5, 1926. Speed, 53.43.

725 Class

5 miles—Helen, owned by M. J. A. Mitchell, Louisville, Ky., July 5, 1926. Speed, 61.22.

Mile straightaway, Doc's II, owned by I. R. Van Sant, Peoria, Illinois, October 11, 1925, winning King of Belgians' Trophy. Speed, 61.77.

Single Engine Hydroplanes

1 mile, Miss Chicago, owned by Sheldon Clark, Detroit, Sept. 3, 1921. Speed, 72.86.

15 miles in competition, Fore, owned by W. D. Foreman, Cincinnati, Ohio, September 29, 1923. Speed, 64.75.

The official Outboard Racing Rules adopted by all Associations for 1929 recognize American records made only over distances of five, six, ten and fifteen miles and mile trials made over statute and nautical miles in each of the several classifications of engines, by drivers of Divisions I and II.

Division I drivers are defined as those who have competed and finished in less than 15 complete races in a given class.

Division II drivers are defined as those who have competed and finished in 15 or more races in a given class.

It must be emphasized that records under these rules are AMERICAN records and NOT Worlds records.

Mile Trials, Statute Miles

Class A, Division I

A-21, driven by Charles Harris at Augusta, Me., July 22, 1929. Built by Herbst, Lockwood engine. Speed 25.96 m. p. h.

Class A, Division II

B-2, driven by A. Sutherland at Worcester, Mass. May 29, 1929. Built by Herbst, Lockwood engine. Speed 26.31 m. p. h. (9)

Class B, Division I

Miss Hupmobile, owned by T. H. Tupman, driven by John Beneloski, at Balboa, California, June 15, 1929. Built by F. J. Pierce, powered with a Johnson motor. Speed 39.24 m. p. h. (14)

Class C, Division I

A-63, driven by Millard Jackson at Augusta, Me., July 22, 1929. Built by Lake Elsinore Boat Works. Evinrude engine. Speed 41.14 m. p. h.

Class B, Division II

Crandall Comet, owned by Crandall Boat Co., driven by John Adams, at Balboa, California, June 15, 1929. Built by Crandall Boat Co., powered with Johnson motor. Speed 40.12 m.p.h. (15)

Class C, Division II

Wild Fire, driven by R. Allen Smith at Cross Lake, La., July 21, 1929. Built by Ashbridge Boat Works. Evinrude engine. Speed 41.01 m. p. h.

Class D, Division I

Hard Luck, owned by Frank S. Royer, at Peoria, Illinois, July 5, 1929. Built by Royer, Johnson engine. Speed 41.76 m. p. h.

Class D, Division II

Blue Streak, owned by Leo M. Baughman, driven by H. G. Ferguson at Balboa, California, June 15, 1929. Built by Lake Elsinore Boat Works, powered with Johnson motor. Speed 47.29 m. p. h.

Class E, Division II

Baby Whale XIII, driven by H. R. Maddocks at Worcester, Mass., May 29, 1928. Built by D. N. Kelly & Son, Johnson engine. Speed 35.02 m. p. h. (D)

Mile Trials, Nautical Miles

Class C, Division I

Bossert Pirate, owned by Walter Peterssen, at Albany, N. Y., July 5, 1929. Built by Bossert, Evinrude engine. Speed 34.05 nautical m. p. h.; 39.15 statute m. p. h.

Class D, Division I

Big Ben, owned by Harold Chapman, at Albany, New York, July 5, 1929. Built by Hallock, Johnson engine. Speed 38.09 nautical m. p. h.; 43.80 statute m. p. h.

Class C, Division II

Thisbe, owned by Helen Hentschel, at Albany, New York, July 6, 1929, Built by Hodgson, Evinrude engine. Speed 34.82 nautical m. p. h.; 40.04 statute m. p. h.

Class D, Division II

Uniplex, owned by W. B. Schulte and W. M. Fry at Detroit, Michigan, September 4, 1928. Built by Century, Elto Quad engine. Speed 32.70 nautical, 37.60 statute. (F)

Five Miles

Class B, Division I

Sweet 16, driven by N. C. Blanchard, at Cross Lake, La., August 4, 1929. Built by Ashbridge Boat Works, Johnson engine. Speed 36.95 m. p. h.

Class C, Division I

Miss Chevrolet, driven by John R. Glassell, at Cross Lake, La., August 4, 1929. Built by Ashbridge Boat Works, Johnson engine. Speed 39.47 m. p. h.

Class D, Division I

Peggy Lee, driven by Floyd Hodges at Cross Lake, La., August 4, 1929. Built by Ashbridge Boat Works, Johnson engine. Speed 41.06 m. p. h.

Class A, Division II

B2, driven by A. E. Sutherland at Worcester, Mass., May 30, 1929. Built by Herbst, Lockwood engine. Speed 25.50 m. p. h. (4)

Class B, Division II

Miss S. & L, driven by C. D. Loe at Cross Lake, La., July 21, 1929. Built by Ashbridge Boat Works, Johnson engine. Speed 36.45 m. p. h.

Class C, Division II

Wild Fire, driven by R. Allen Smith, at Cross Lake, La., August 4, 1929. Built by Ashbridge Boat Works, Johnson engine. Speed 38.73 m. p. h.

Class D, Division II

Miss S & L, driven by Chas. Dillman, Cross Lake, La., August 4, 1929. Built by Ashbridge Boat Works, Johnson engine. Speed 41.69 m. p. h.

(*Continued on page* 148)

DAWN 45

Dance Night

YOU feel real pride of possession when your Dawn 45 glides gracefully up to the float.... all trip gaily ashore.... everyone looks their best. Why shouldn't they?

They have had a swim.... dressed in a comfortable cabin with toilet facilities equal to those in a home.... enjoyed a delicious dinner prepared in a galley that is a real kitchen.... a dinner perfectly served in the cool comfort of the cockpit. Then an exhilarating burst of speed to reach the club in time.

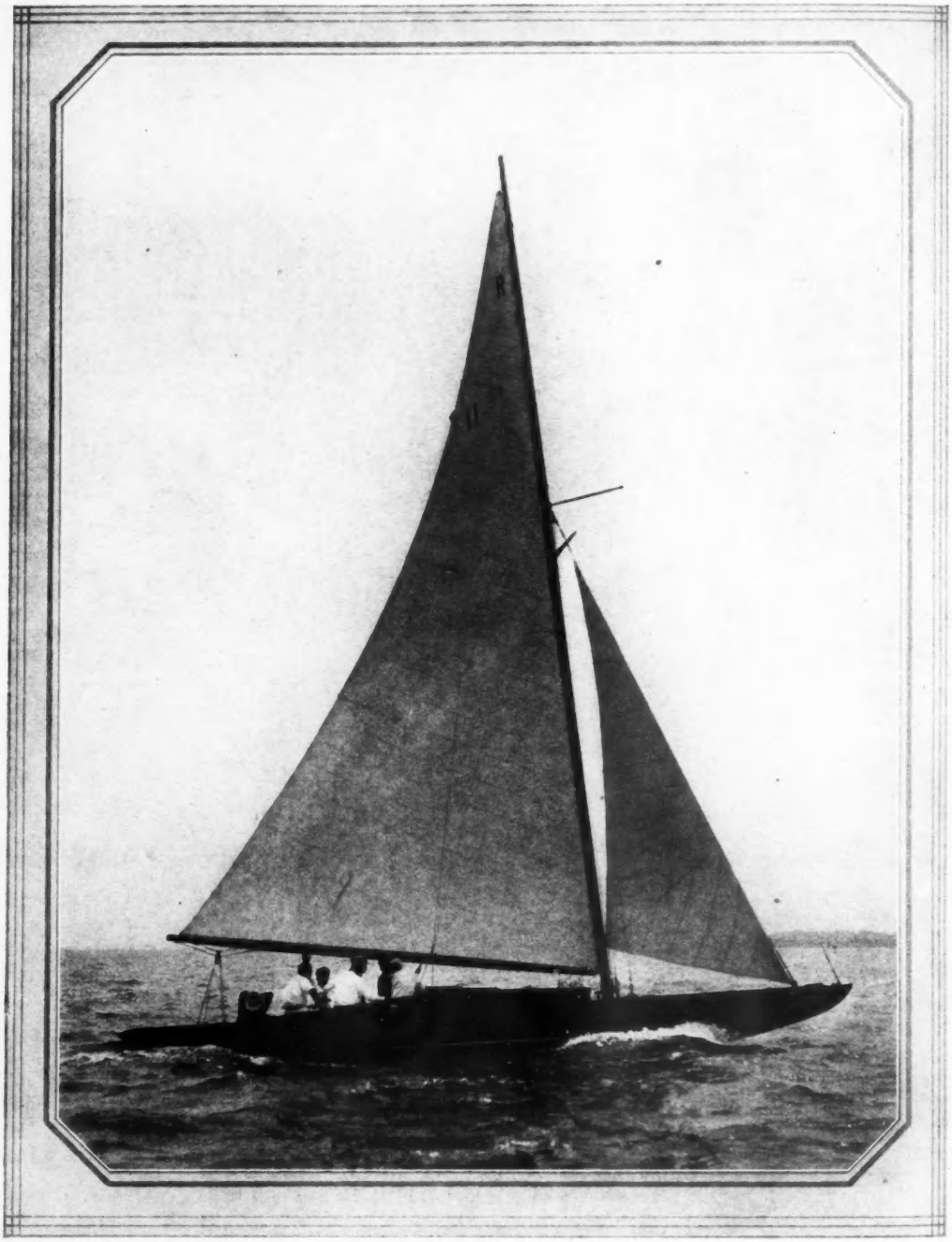
You are invited to visit our yards and see how carefully, how well yet economically the Dawn 45 is built. Literature will be cheerfully sent to those who request it.

$10,500 *complete*

Afloat at Clason Point
Powered by twin Lathrops

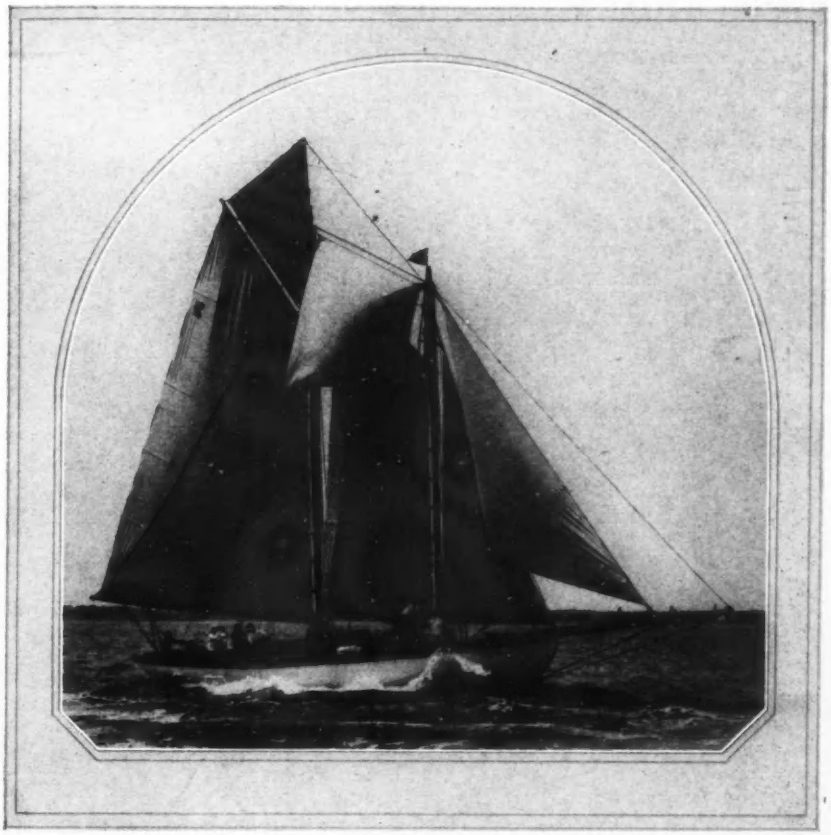
DAWN BOAT CORPORATION
Established 1906
CLASON POINT · NEW YORK CITY
Westchester 7000

The World's Largest Builders of Standardized 45-Footers



PIRATE, A CLASS R CHAMPION

In the recent race week of the Larchmont Yacht Club, the Class R series was won by Pirate. This sloop is owned by O. K. Hunsaker of Los Angeles, California, Commodore of the Southern California Outboard Association. She was sailed by Capt. Matt. Walsh and Fox Case



M. Rosenfeld

Kumalong, the smart little schooner sailed by John W. Ripley, winner of the Bayside-Block Island auxiliary race

THE DEVIL TAKE THE HINDMOST

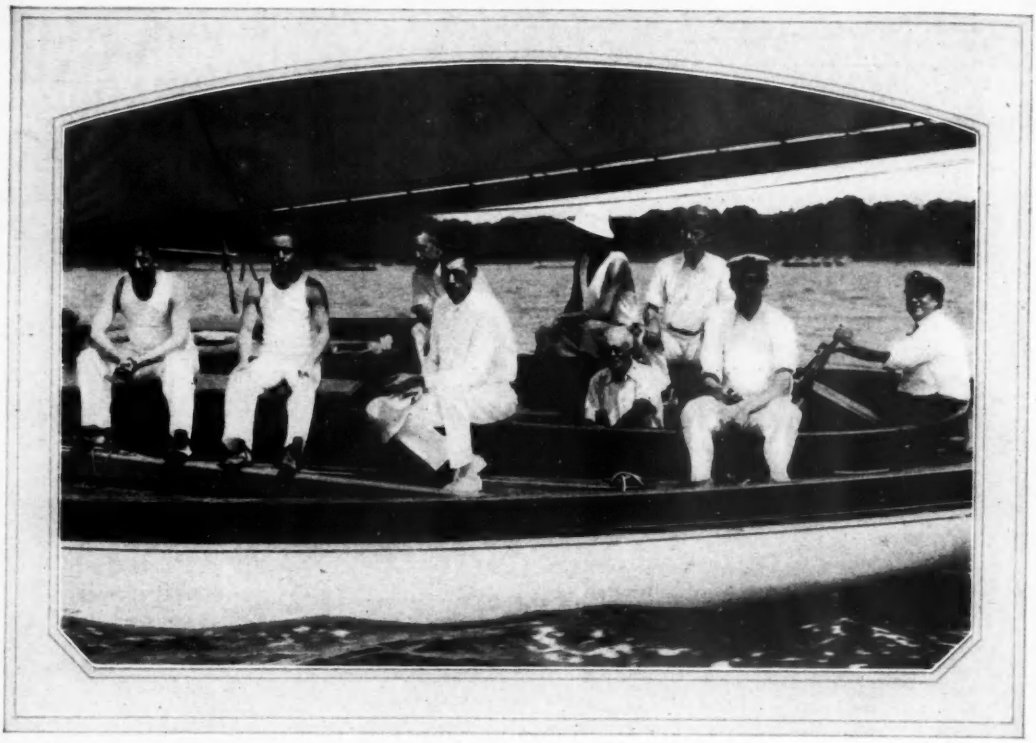
Being the Story of the Cutter Hotspur's Sorry Showing in the Bayside-Block Island Race for Auxiliaries

BY ALFRED F. LOOMIS

WELL, it seems that there was a race for auxiliaries between Bayside and Block Island, and twenty-eight boats started and the number 28 was sewed to our sail. And as the little cutter Hotspur was the smallest in the fleet we thought that would be the order of our finish. But that wasn't how Bunny Rigg came to supply the brilliant title which appears at the head of the story. Nope. That will come out in due time. For the present it suffices to say that the ninth annual Bayside-Block Island race of the Bayside Y. C., was won by the schooner Kumalong, owned and smartly sailed (and motored) by John W. Ripley of Bayside; and that the yawl Playmate owned by Robert D. Teller of the same club took second place, and that the schooner Rissa, owned by Seward De Hart of the Harlem Y. C., captured third place.

Now there is a schooner for you. A powerful-looking gray auxiliary measuring 52 feet over all, and winner of last year's race. Linton Rigg, the designer of Hotspur, had our tiller at the start and by expert calculation put us a few yards from the weather end of the line a few seconds before the gun. At the psychological moment he brought us about on the starboard tack and we headed for the line. Then astern and to weather of us along came the powerful Rissa.

"Buoy room," called a stentorian voice from Rissa.



The crew of Kumalong, among whom are Commodores Ripley, Dean Anderson, Walter Groszmann and other prominent yachtsmen

"Give us room at the mark."

Rigg and his brother Bunny and Lorna Whittelsey's brother Chick who comprised the able crew of Hotspur looked at each other in surprise. Then they laughed aloud. They are all veterans of the Interclubs, the hottest racing sloops on the Sound.

"How do you get that way?" they asked of Rissa. "You haven't got an overlap."

As the seconds before the gun melted away Rigg's hand on the tiller was steady and his course for the line was true. But here I put in an amiable objection. "Linton," said I, "we're strangers down here, and for all we know to the contrary that's the way they sail races. Let's give him room."

So Rigg knocked us off a bit and made room just as the same stentorian voice from Rissa boomed out, "We'll get an overlap all right."

Perhaps it was just as well we did bear away, because a few seconds later Rissa established an overlap on the yawl Trump so effectively that she punctured a hole in the little yawl's bow—an injury serious enough to force Trump to withdraw when the weather got bad. In various ocean and semi-ocean races that I have taken part in I have wondered what would happen if one boat rammed another at the start. Technically, and if long distance races were run like triangular races, the boat guilty of the foul should withdraw. Now I know that in semi-ocean races, at least, it is different. Rissa took third place and Trump withdrew.

As I was saying, it seems they had a race down at Bayside.

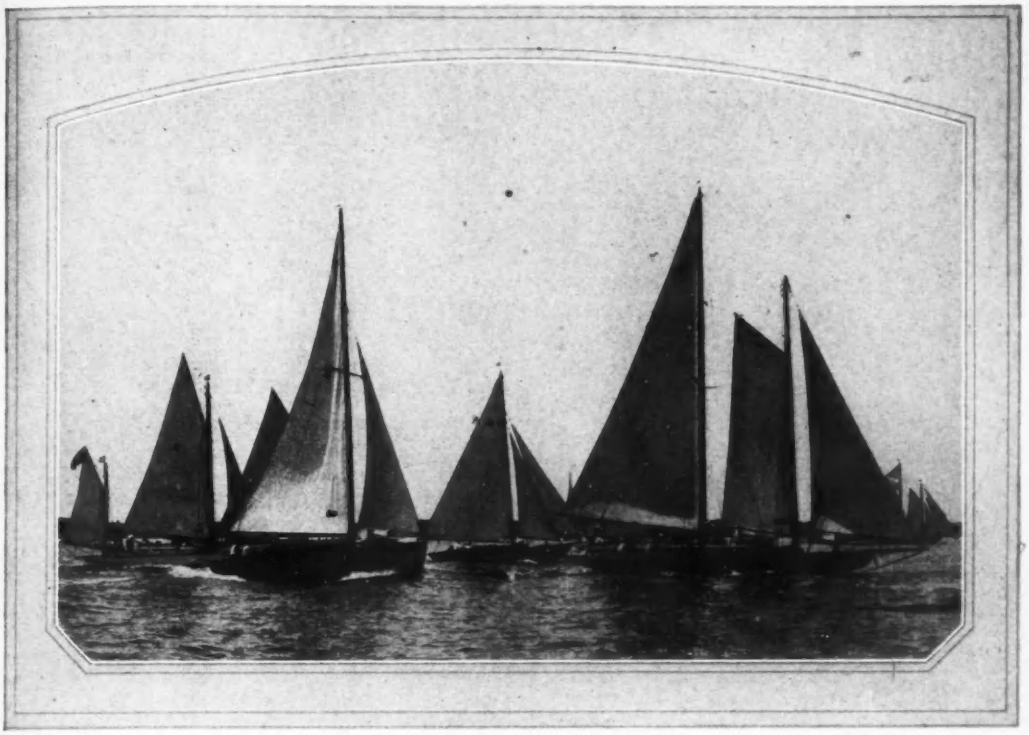
To go back to the beginning, there were five boats of the fleet of twenty-eight jockeying for a start, sailor fashion. They were the three already mentioned and Alex Girtanner's Rambler and J. W. Rockwell's Nancy R. The remaining twenty-three bided their time, conscious of the fact that a long distance race is not won at the start. At the line all was still as death —except for the calls for buoy room.

Then the gun boomed (beg pardon, the whistle blew) and twenty-seven motors sounded off like a battery of riot guns. I thought for a moment that a flotilla of outboards had sneaked up on us unawares. But in the next instant I was starting our own motor and the instant after that the whole twenty-eight of us were streaking it for Stepping Stones Light, hell for leather, right into the eye of the wind. Motors roared and sails shook like thunder and on we tore, the motor sailer Nancy R shooting out ahead like a bolt of lightning.

We didn't do so badly ourselves, once we became conscious of the fact that this was an auxiliary competition and not a sailing race, and as far as Execution we were right up among the leaders. Then a steamer passed by and we caught the wash of it and our motor faltered and died. Bunny got out the glasses and began looking for wind down the Sound. "There's a nor'wester coming out of Larchmont," said he, "and a sou'wester over on the Long Island side. Wot'll you have?"

His brother chose the Long Island side and I began operations on the motor. I don't want to make this story too long, so I shan't repeat all I said about marine motors or all that Chick Whittelsey and I did to get ours going. But I labored with it three hours and bashed my knuckles on the drip pan while spinning it over, and Chick found on the cabin floor a spring that I had accidentally whisked out of the commutator while wiping the oil off it, and finally I found where the trouble was.

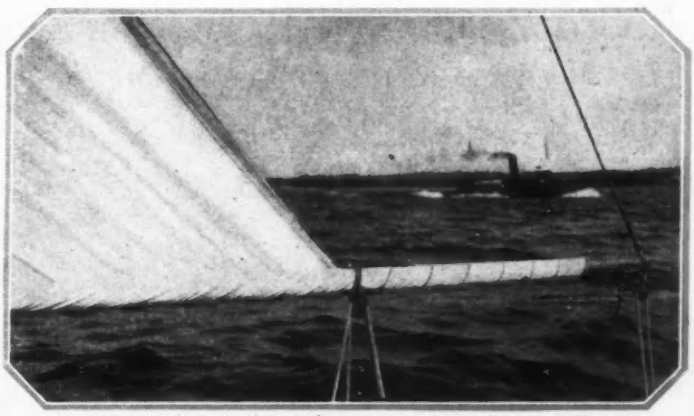
In making the connections for the gasoline line the thoughtful plumber had rendered them leak-proof by the application of white lead. This had all drained



The fleet shortly after the start, with the schooner Rissa prominent at the right closely followed by the little cutter Hotspur

into the bowl of the carbureter, where it had lain quiescent as long as the going was even. Like a snake in the grass, if you will permit the metaphor. But with the first motion the white lead had stirred itself up, and marvelous as marine motors are, I've never yet heard of one that will run on white lead. So it wasn't the motor's fault that by the time we got it going the fleet had disappeared over the eastern horizon and left us to bring up the rear.

During this period of blood and curses Rigg and his brother and Lorna Whittelsey's brother had been performing some intricate work in the way of sailing. Although there was no wind at all that I could see they had set the spinnaker now on the port side and now to starboard and trimmed the after guy and slacked it off, and actually got us as far as Oak Neck in a flat calm. Then the dismembered and reassembled carbureter for the last time coughed gasoline over the part of the motor previously occupied by the electric generator and got down to business and we once more had a bone in our teeth.



A close up of the roller reefing gear used on the cutter Hotspur which works ever so much easier than the older accepted method of reefing

Right here is where I interrupt myself in the interests of engineering science. Some day, I hope, marine engineers will go to sea with some of the motors they concoct just as, nowadays, naval architects are getting the habit of sailing in yachts of their design. Until then such a thing will happen as happened to Hotspur's motor.

On the run up the Sound to Bayside the day before we had stopped the motor and a few minutes later attempted to start it again. The carbureter spit out a gill of raw gasoline on to the generator, and the generator bubbled the way a redhot stove does when water is poured on it. I reached one hand for the fire extinguisher and then as we didn't go up in smoke I placed the other hand on the generator and drew it away in pain. Like the stove. it was redhot.

Putting on my seagoing thinking cap, I figured out the sequence of events. The carbureter is placed directly over the generator. The carbureter emits raw fuel when the engine is started or stopped. The raw fuel cuts the oil on the generator bearings. The generator overheats. It burns out its wiring (*Continued on page* 86)

A feature of the social hall in the after deck house is the exceptionally large window space

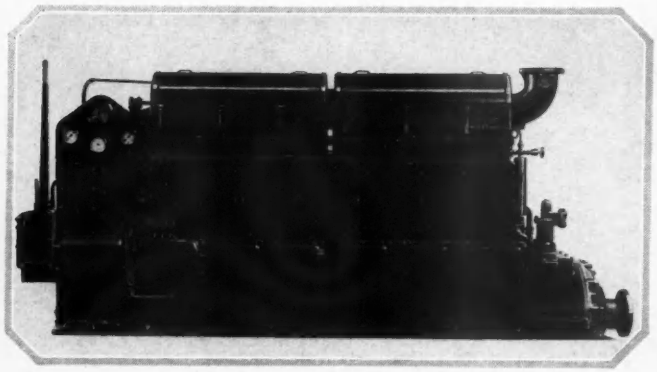
YOREDA—A NEW LAKES CRUISER

An Interesting Diesel Craft Built for Aaron DeRoy of Detroit by the Defoe Boat and Motor Works

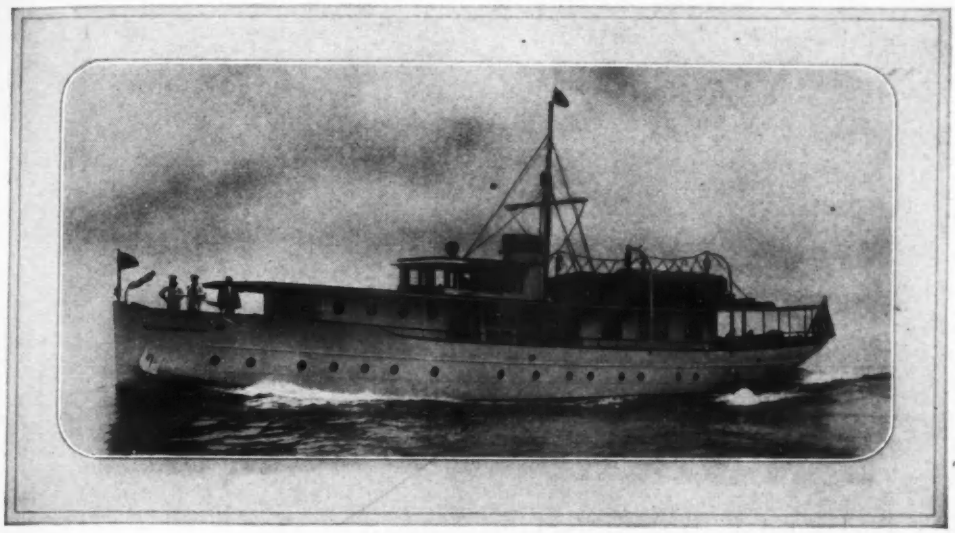
THE recent launching of the diesel yacht Yoreda has added another fine vessel to the constantly growing register of American built pleasure craft. This boat built by the Defoe Boat and Motor Works of Bay City, Michigan, for Aaron DeRoy of Detroit has created an unusual amount of interest among yacht owners who have been privileged to inspect the vessel. Yoreda is a steel vessel, 106 feet in length, with a beam of 17 feet, 3 inches. She is a strictly modern and luxurious craft in every respect and on her trial runs called forth the enthusiastic praise of every one aboard.

Mr. DeRoy, the owner of Yoreda, is one of Detroit's prominent and popular yachtsmen and is at present Commodore of the International Yacht and Country Club at Amherstburg, Ontario. His first Yoreda, a 62-foot vessel, also built by Defoe in 1924 has been at practically every boating event at the Great Lakes since then, in many of which her owner has had some of his speed boats in competition.

The new Yoreda is built entirely of steel in the hull and cabin houses, with teak decks and trim. She is powered with two six-cylinder Bessemer Diesel engines with a bore and stroke of 7½ by 10½ inches which deliver 150 h. p. each. These drive her at a maximum speed of 14½ miles and on the run from the builder's plant at Bay City to her home port at Detroit gave her an easy cruising speed of 13½ miles on a moderate number of revolutions. The boat is very smooth in operation and free from vibration at all speeds. In fact, during her trials one of the guests, a captain on another fine diesel yacht, remarked that Yoreda was freer from vibration than any yacht he had ever been aboard. The engines turn at 500 revolutions and prior to the trial runs, had only been tried out for about 20 hours in dock trials. Throughout the



One of the pair of Bessemer diesel engines of 150 h. p. each which drive Yoreda at 15 miles

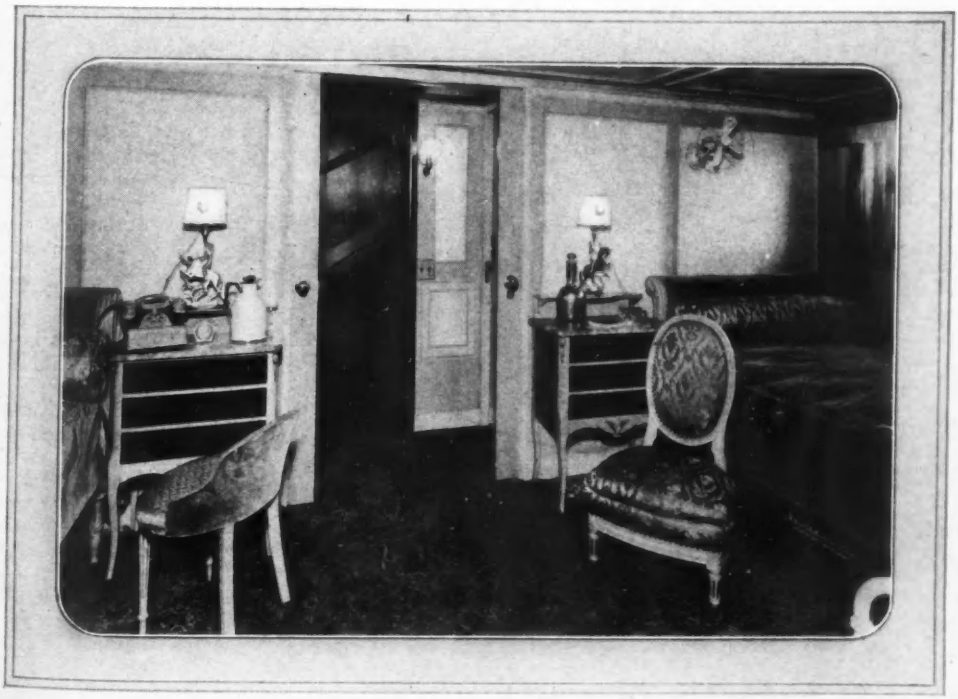


The ship on her trial trips behaved perfectly and fully came up to all expectations of the owner and builders

boat, it is impossible to detect the slightest engine noise and the dining room, living room and staterooms are free from sound since the motors are so quiet that they do not interfere with conversation carried on in ordinary tones.

In addition to the main engines there is also in the engine room, auxiliary machinery of several kinds. A Cummins diesel auxiliary furnishes air pressure and electricity while the water pressure system is a Delco. The fire and bilge pumps are Blackmer and an Economy sump pump handles this detail. The American Engineering Company supplied the electric anchor winch and boat hoists and there is also a heating, cooling and mechanical ventilating system which uses an Arcola hot water boiler for the heat supply. Pyrofax gas is used in the galley range for cooking purposes.

An interesting arrangement of the accommodations provides for a large dining room and pantry in the deck house forward and a large and comfortably appointed living room aft. Exceptionally large plate glass window in this living room make it practically equivalent to outdoor space and in inclement weather it can be closed in to provide ample protection. Sleeping accommodations are below the main deck and a large double stateroom is arranged for the owner's personal use with adjoining bath and dressing rooms. Three other guests' staterooms have been provided, each with private baths.



Attractive decorations in the owner's quarters make them most cheerful

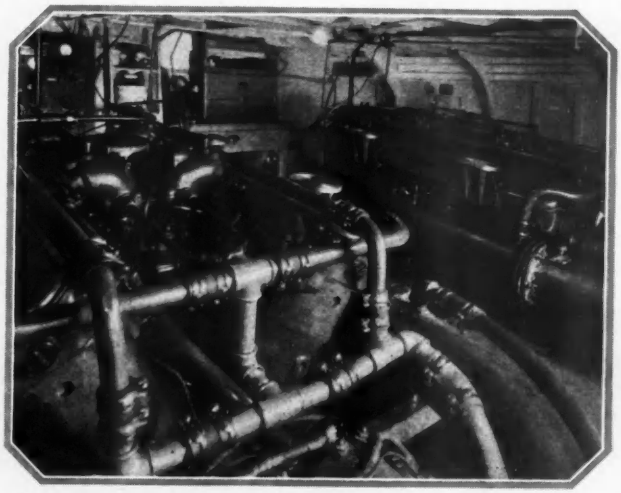
The enclosed deckhouse gives complete protection in bad weather

E. Levick

COMMUTING IN COMFORT

Peacock III, a Trim 72-Footer by Luders, Was Built for Thomas Eastman for De Luxe Commuting at 30 m.p.h.

PEACOCK III is just another reason why commuting by water has so rapidly become a popular means of transportation between the office and country home. On a hot summer's afternoon, Peacock, in shining white enamel and bright with mahogany houses and chromium trim, may be seen slipping rapidly and quietly out through Hell Gate, as her owner escapes the heat and humidity of the city and seeks the invigorating coolness of his summer residence. Enroute he has an opportunity to enjoy a refreshing shower in his comfortable cabin and then finds time to finish reading his afternoon paper, the entire trip from New York to Glen Cove requiring a little less than an hour. Commuting in this manner, the trip is made more rapidly than would be possible by land, with the complete elimination of hot rides on train and subway and annoying delays in making connections. There are probably less than half a dozen days during the course of the season when inclement weather would make the boat ride less desirable than the trip by rail. Naturally to be suited to this purpose, a boat must be fast, seaworthy and comfortable, and these qualifications Peacock possesses to a marked degree, as well as an exceptionally smart appearance.



A pair of Wright Typhoons of 650 h.p. each have driven Peacock on a trial trip at 34½ m.p.h.

As the illustrations show she is an unusual craft and a boat that will command a second glance. The beautiful low

The dining room is simply decorated and can readily be converted into sleeping quarters for four persons

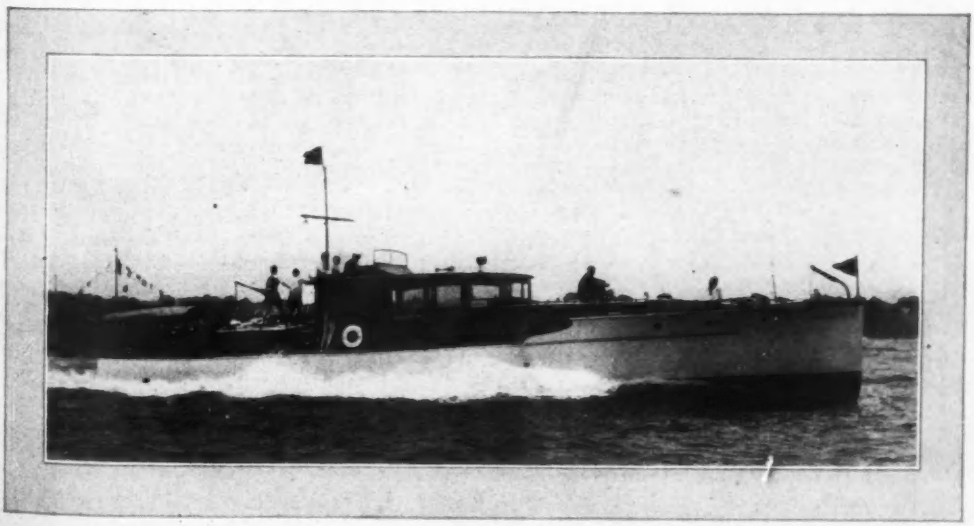
streamline hull, a new departure in naval architecture, was designed and built by the Luders Marine Construction Company for Thomas Eastman of New York City. The accommodations of this interesting little boat consist of a large master's double stateroom aft with ample closet space lined in aromatic red cedar, generous bureaus, mirrors and desk and a separate toilet and shower room, with everything built on a large and uncrowded scale.

The crew's quarters, in the conventional manner, are in the bow of the boat—light, bright and airy quarters for four men. Following this is a comfortable little galley with gas stove, Frigidaire ice machine and all modern cooking conveniences.

The dining room with seats on either side, accommodates eight people around a spacious table. In addition it is so arranged that it may be readily converted into sleeping accommodations for four persons.

Back of the dining room is a large deckhouse or lounge. Steering control is located at the after end of this room, raised in such a manner that the helmsman has clear vision over the roof.

Peacock III is powered with a pair of 650 h.p. Wright Typhoon engines which drove her practically 34½ m.p.h. on her trial trip, which means that her owner can reasonably expect 28 to 31 miles.



Peacock is of modified V-bottom construction, carefully designed to prevent pounding in the roughest weather

The main deck saloon is large and spacious. Easy chairs and large windows make it an ideal room

NIRVANA IV—A SHIPPY CRUISER

New Diesel Yacht Just Completed for H. Struckmann Combines Appearance With Sea Going Ability

AMONG the large number of new yachts that have been added to the fleet this year Nirvana IV is one that will be admired by those who consider yachty appearance of primary importance.

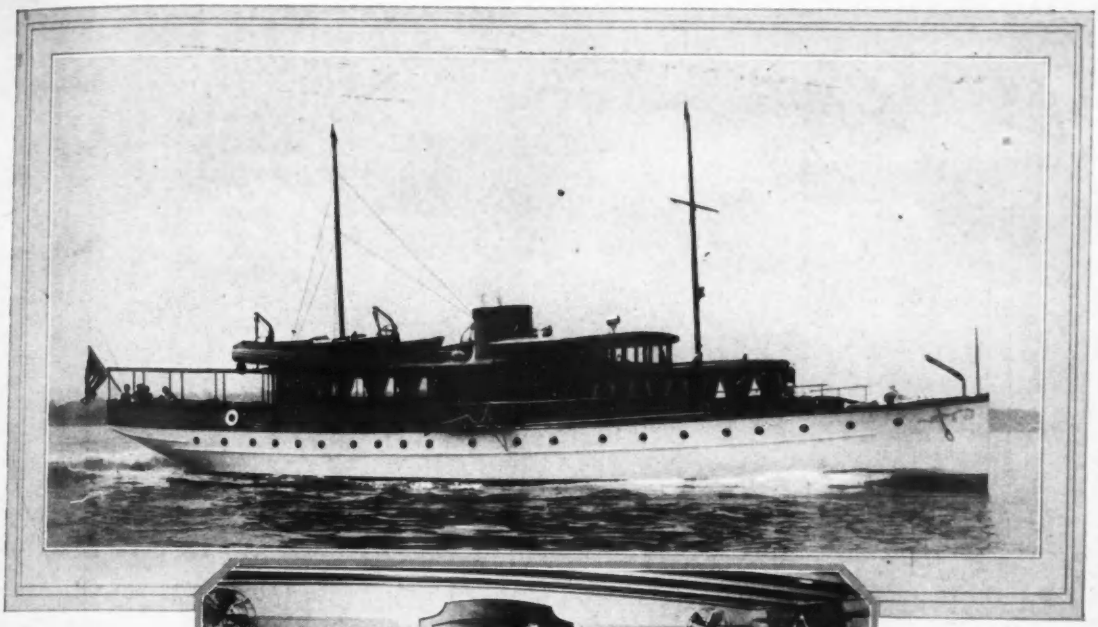
Nirvana IV was designed and built by the New York Yacht Launch & Engine Company, and is powered with two 150 h.p. Winton diesel motors. Her owner, Holger Struckmann of Greenhaven, New York, and President of the International Cement Company, is a man of fine taste and as he is an engineer by profession required the builders to design a craft that he would be proud of as well as being practical to the *n*th degree.

Nirvana IV is 100 feet long, 18 feet beam, and has a speed of 14 miles per hour. In the planning great stress was put on the prevention of any undue vibration and the results have met his every desire.

The owner's accommodations below deck consist of five staterooms, three of which have double beds, one having a single bed and the master's stateroom having two three-quarter width beds. The master's stateroom has bathroom attached, each of the other staterooms have porcelain lavatory with running hot and cold water. The guests' bathroom is equipped with shower. Both baths have salt water spray in addition to the fresh water supply. Toilets are Lee Electric.

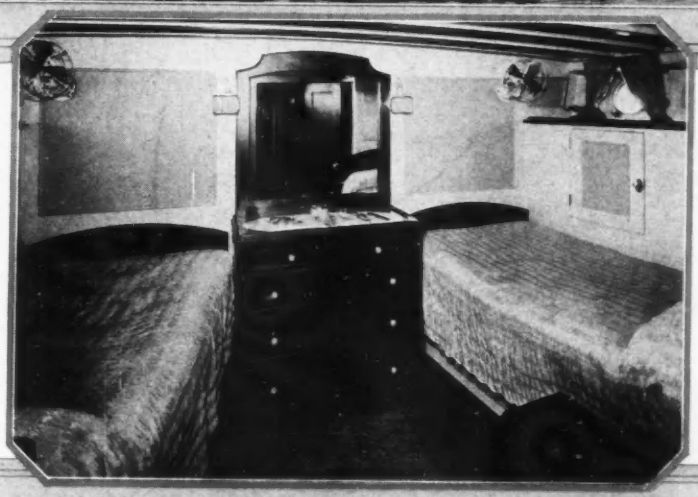
Owner's dining room and deckhouse are works of art. Mr. Struckmann had a library worked in the forward end of aft deck saloon. The equipment of this yacht is of the most modern type, each item was given rigid examination before being adopted. The generating plant is a 7½ k.w. direct connected Winton set of 110 v. The battery is an Exide type MVA with large capacity. The switchboard was designed and built by the N. Y. Yacht Launch & Engine Company. The fresh and salt water pressure equipment are Decatur outfits. The engine-room of Nirvana IV is laid out in a most practical manner and it is a pleasure to see the result that can be obtained when the builder is interested in the designing of this (after all the most important) part of a yacht.

The galley and pantry are both equipped with a Kelvinator ice machine. Cooking is done with Protane gas. The Arcola heater which supplies the hot water with which the yacht is heated is located in the galley.



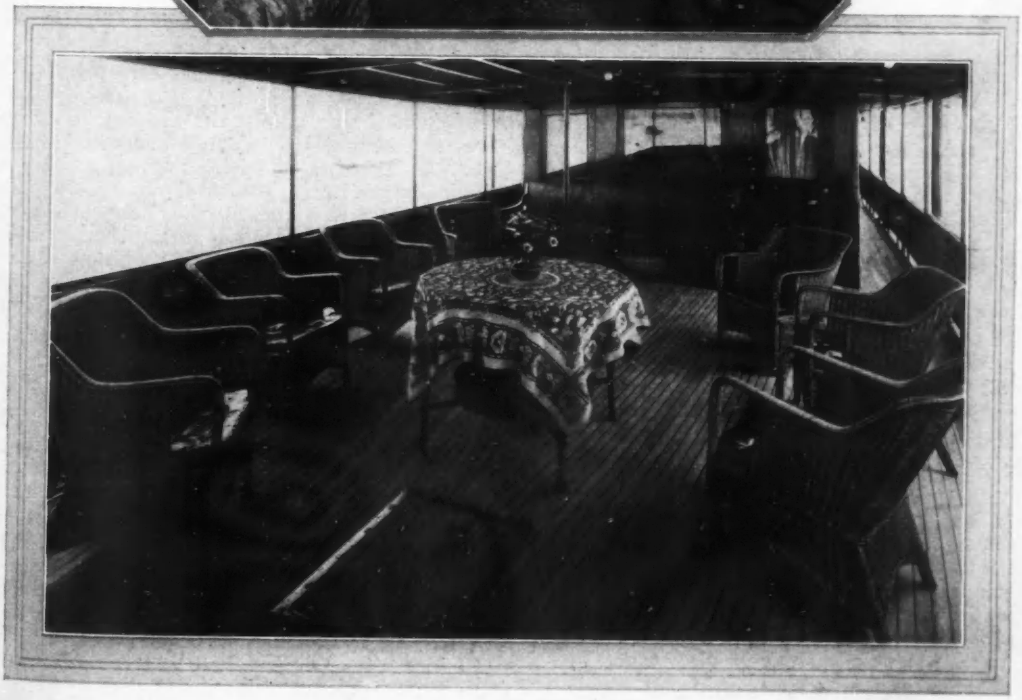
Photographs by M. Rosenfeld

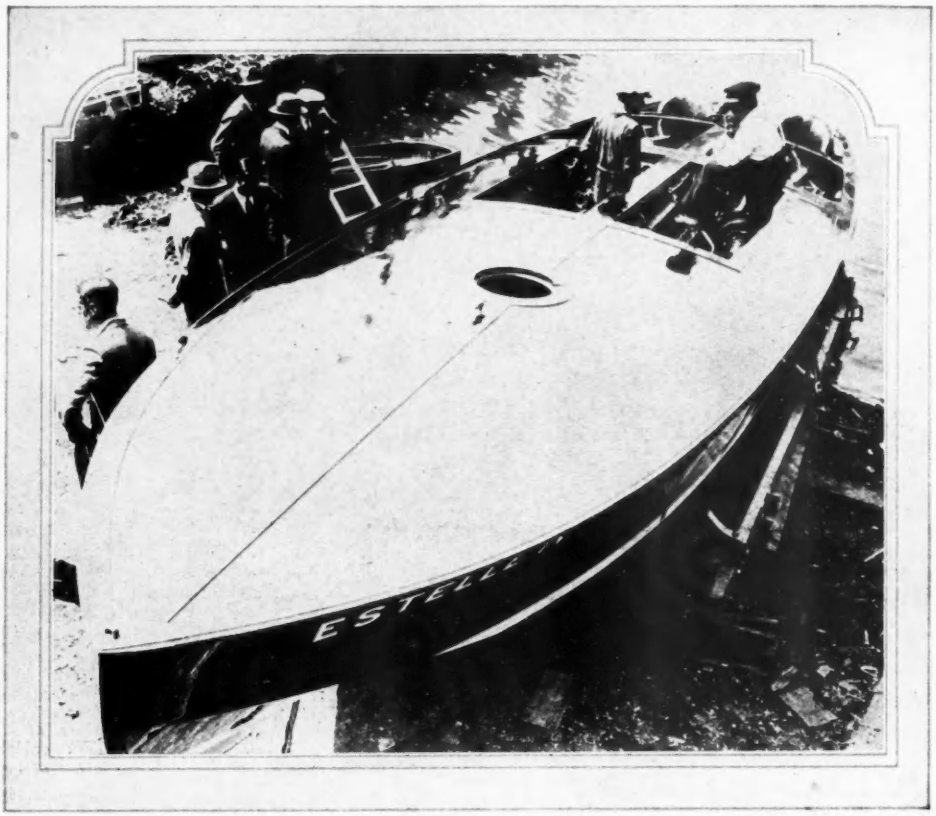
Nirvana IV is 100 feet in length and powered with two Winton diesel engines of 150 h.p. each which drive her at 14 miles



The main deck aft is roomy and its many easy chairs can make the owner and guests completely comfortable while under way or in port

Five staterooms are provided in the owner's quarters, three with double berths, one a single, and the owner's room with two large beds





International News Reel

Estelle IV, in the yard where it was built. It carries three engines of almost 1000 h.p. each and will attempt to take the B. I. T. Trophy from Gar Wood

ENGLAND'S NEW CHALLENGER

Estelle IV, Miss Marian Carstairs' British International Trophy Challenger Arrives from England and Undergoes Trials Here

ENGLAND is about to make a most determined attempt to capture the British International Trophy from the American sportsmen who have held it in their custody for many years. Miss Marian B. Carstairs who made an unsuccessful attempt last year to capture this famous trophy with her two boats Estelle I and II, has since then completed two additional boats, Estelle III and IV. The third was one discarded as unsatisfactory and the last one is now in Canadian waters undergoing final trials and tests. Miss Carstairs represents the English yachting world and she is one of the strongest competitors which Gar Wood will face in this famous race at Detroit on Labor Day. Miss Carstairs will pilot this boat herself and from statements which have been made, very high speeds are predicted for this new boat and while no one has any idea what the speed will be with full power, it will be shortly tried out and possibly its ability will be known before the contest takes place.

Miss Carstair's entry in what has been a man's competition heretofore, opens up another field for the women in which to try their skill against that of the men. She has had ample experience driving high speed boats and was only put out of the running in last year's trials by an unfortunate accident to her boat. She is accompanied by Captain Campbell Marshall who will assist her in driving the boat and her mechanic Joseph Harris.

The boat itself is an outstanding example of private enterprise since it was built in a small boat yard which Miss Carstairs has purchased and which is used exclusively for the purpose of building her racing boats. Contrary to the earlier English practice which favored the sewn method of constructing boats of this kind, Estelle IV has been built with a double thickness of planking as is the practice in the fast boats in this country. The thickness of the bottom totals 1⅛ inches while the frames are steam bent and closely spaced. It is of the regulation single step hydroplane type, 35 feet in length, with nine and one half feet beam. No particular attempt has been made to cut down the weight and it is reported that the boat will weigh well over four tons. Considerable attention has been paid to appearance and stream lining as the wind resistance at high speeds is a large factor in retarding a boat of this kind. A substantial water tight bulkhead just forward of the engine compartment will help to prevent (*Continued on page* 80)

Mrs. J. A. Talbot, Jr., ready to christen Miss Los Angeles II in true nautical style while Mr. Talbot assists

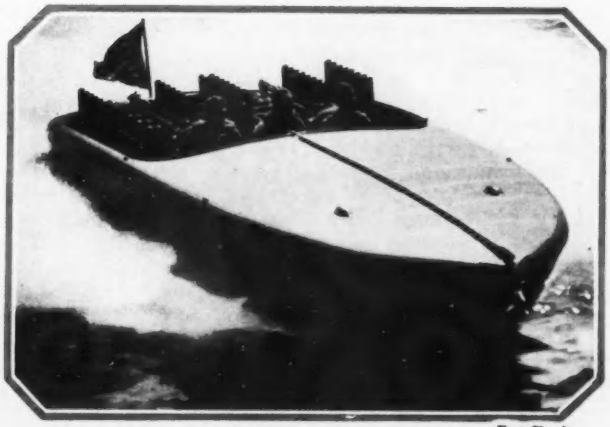
P. & A. Photograph

JAMES A. TALBOT, JR. ENTERS MISS LOS ANGELES II

A New International Racer with Two 24-Cylinder Motors to Race at Detroit

OF the several boats which are being prepared for the British International Trophy Race in Detroit on Labor Day, the Pacific Coast entry, Miss Los Angeles II, is the first to be launched and tried under its own power. This is a decided advantage as boats of this kind always require much last minute adjustment and tuning before they are considered ready for supreme trial.

Miss Los Angeles II, owned by James A. Talbot, Jr., of Los Angeles was built at the plant of the Wilmington Boat Works, Wilmington, California, from designs by Hugh Angelman. Her length is 39 feet with a rather wide beam of 9 feet 8 inches. Her weight in racing trim is said to be seven tons. The power plant consists of two Harry A. Miller engines, rated at approximately 1000 h. p. each. They are of 3298 cu. in. piston displacement and turn over at 2600 revolutions per minute. The cylinders are arranged in three banks of eight each, one of which is vertical, while the others are inclined at a 45-degree angle, to the central one. The ignition is arranged with six distributors which fire eight cylinders each with dual ignition throughout. Sixteen carburetors will supply fuel to the engines, eight of these being single and eight of the dual type.



Ray Chapin

Speeds up to 100 miles are expected from Miss Los Angeles when she gets in tune

The engines are so

(*Continued on page* 102)

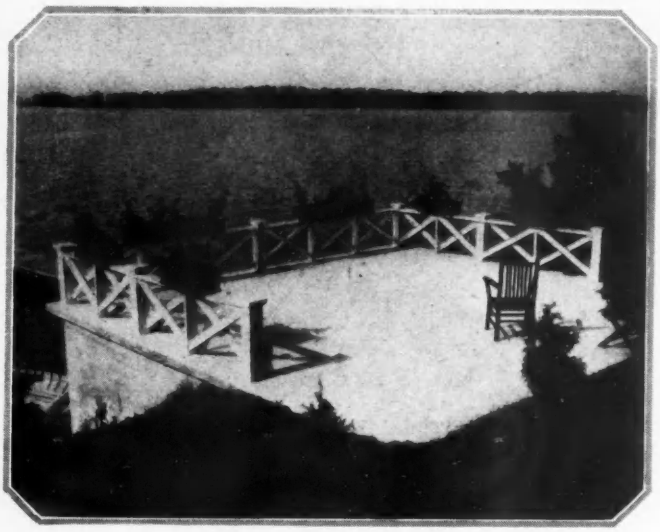
HOUSING FOR THE BOAT

How a Boatman Has Built a Permanent Shelter for His Craft to Render Years of Hard Service

By JOHN F. RYAN

BACK in the not so long ago, a motor-driven machine on four wheels came along the highways of America. With a honk and tootle it called, Pied Piper-like, to the hosts afloat—and for a number of years the inland waterways were littered with neglected hulls and boathouses. It was the sport of motoring on land which brought about the exodus from the water, but this one-time sport is no longer a matter of recreation.

Man has developed his mechanical legs to the point of necessity, and in recent years he has been casting longing glances back in the direction of water for release from the workaday habits of car driving. The result shows in the increased production of boat manufacturers, while the advent of the flivver ship has done much to popularize boating to a wide extent.



The concrete roof of the boat house has been trowelled smooth and furnishes an ideal dancing floor

Popular tastes in sports have apparently gone wet and the long expected return to water is starting to present its problems. Boat makers are having difficulties in supplying demands, sailormen and accessory dealers are also being kept on the jump, but the big problem is something else.

Motorboating is sadly handicapped by a lack of proper housing facilities.

Unlike the automobile, there are no terminal garages where the boat may be stored for the winter. A boat cannot be run up into the back yard of the average city home, and it's certain that it can't be tucked into a pocket or under the davenport somewhere. Since the problem of housing is not likely to lend itself very readily to commercialization, the job of providing a home for the family ship must largely be undertaken by the owner himself.

It is quite common to find a host of ships under water-tight canvas covers in almost any summer port. But, unfortunately, summer doesn't last all year around in certain portions of the country, and spring is sometimes a long, long way behind. It is common, too, to find a lot of ugly boat shacks cluttering up a water front, but on the other hand, it doesn't seem logical that mankind should house its boats in shanties which are not comparable, by any token, to the actual value of the ships. A man who would balk at putting his car in an eyesore of a garage still thinks it quite all right to park his boat in such a place, even though the ship may have cost him a considerable sum more than the car.

Why not give the boat a chance to be of service for a few more seasons?

The problem of boat house construction is a much mooted subject. Perhaps this is due to the fact that there have been many pet ideas and not much standardization in such building. Granted that the northern climes have the hazards of winter to contend with, it would seem to be no more than reasonable to believe that standard, permanent and sightly construction should be available.

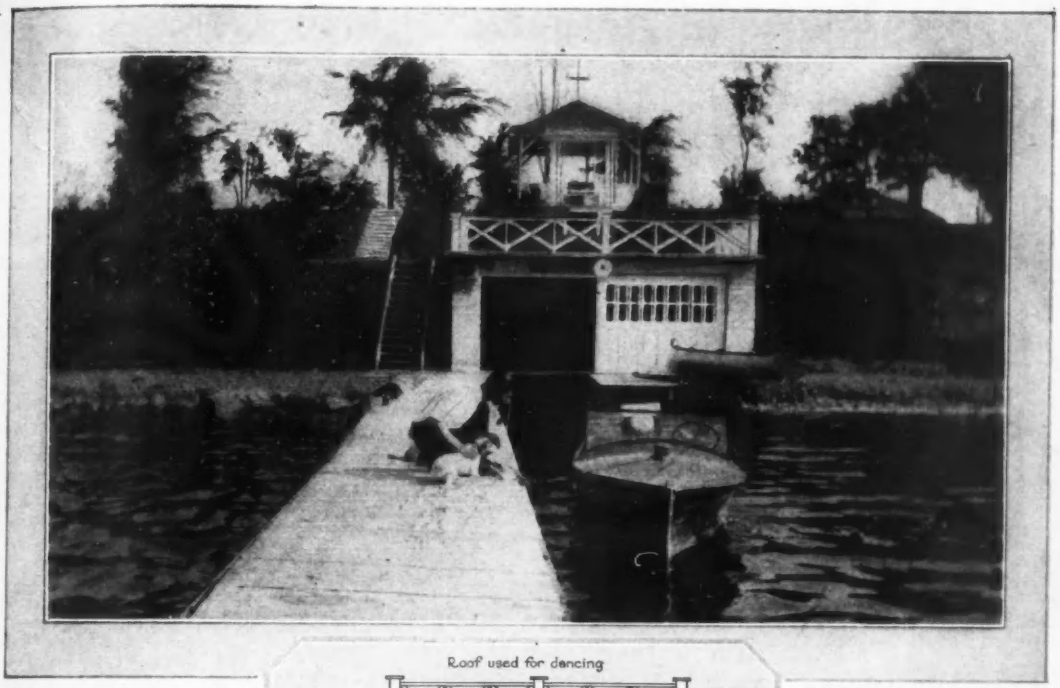
At least one such construction job has come to the attention of the writer this season. This is the boat garage built by George Kamm, of Racine, Wisconsin, Commodore of the Wisconsin Boating Association. Naturally, Mr. Kamm is no novice in boating, and for a number of years he has taken active interest in affairs pertinent to traveling the waterways.

His direct study of the boathouse question dates back over a period of nine years, during which time he has amassed a not inconsiderable store of information on the subject. His new boat house was completed early this season, and the structure incorporates a number of ideas which are certainly worthy of comment.

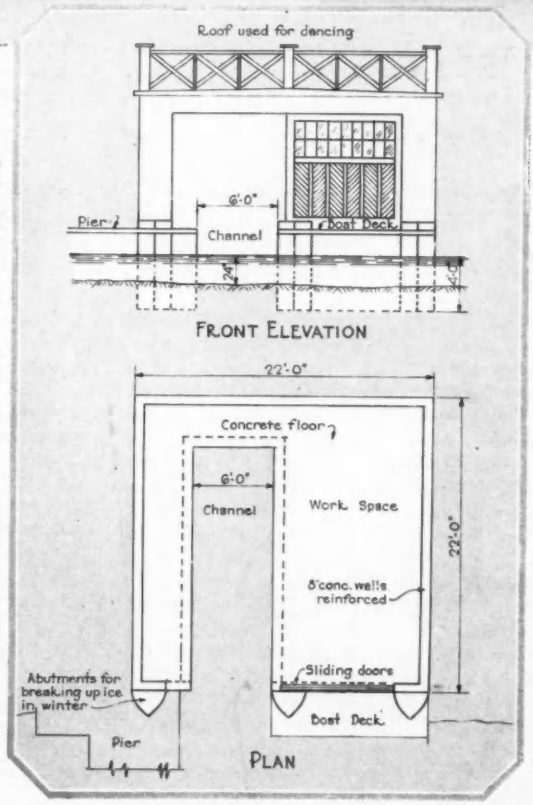
Mr. Kamm's house is situated on the shores of Eagle Lake, where he also has his summer home. The lake, like most of the small inland bodies of water in Wisconsin and the northern states, is frozen over every winter, so the construction problems involved in the case will probably be of interest to a great number of boat owners.

The building, first of all, is designed to resist any possible bad effects from frost, water and ice. The foundations and structure generally are of reinforced concrete, since this material was the easiest to adapt to his specific requirements.

As to the purely structural details of the building, the walls are of reinforced concrete, 8 inches thick, and extend three feet below the high-water line. Three pointed, ice-breaking abutments front the base of the house, one at each side and one in the center.



An attractive appearance adds to the value of the building



The elevation and plan show the substantial and permanent nature of the construction

These have been built to extend four feet below mean high-water mark. The building proper is 22 by 22 feet square, and allows ample internal space for a 6-foot wide boat channel and work floor.

The house is built into the lake bank, which is rather steep at that point, and the ground above is terraced to a level with the top of the house.

It is the roof of the structure which presents one of the unusual features of the project. Unlike the peaked and gabled roof so common, Mr. Kamm's roof is of flat slab construction, and due to the fact that the upper surface was carefully troweled during the finishing operations—he is able to use his boathouse roof for dancing!

This feature, while not wholly a necessary adjunct to a properly built boat house, is a worthy departure from prior building practices, and may serve to give prospective builders a few ideas of their own.

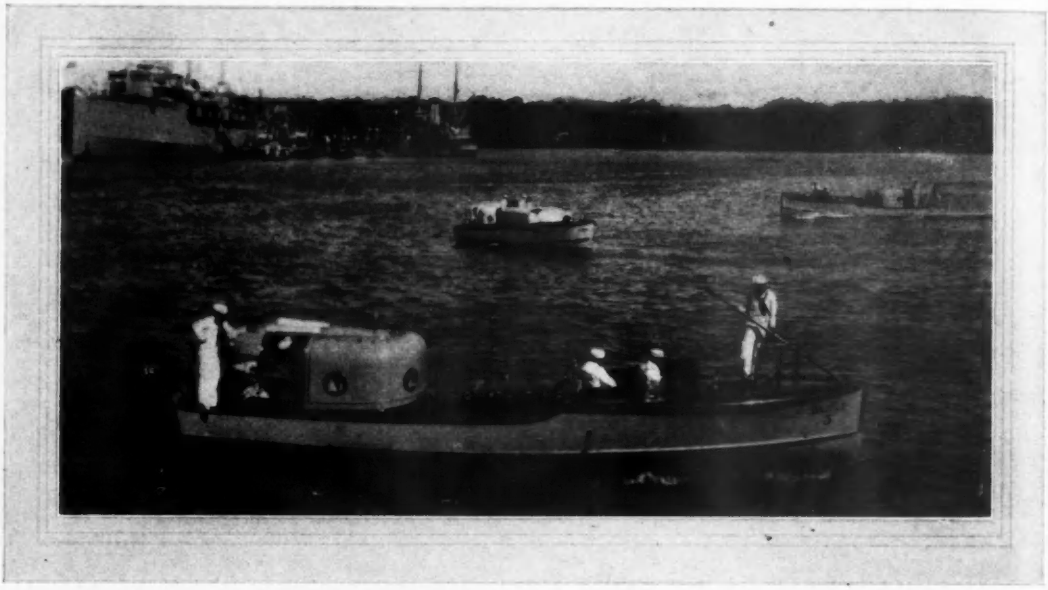
The roof is neatly fenced about, and is equipped with flower boxes in summer. The slab is 4 inches thick at the edges, sloping up to a 7-inch thickness at the center, which takes care of all necessary drainage and provides the essential structural strength to support the roof load.

Fifteen-inch reinforced concrete beams are placed in the structure across the front at the top and through the center of the building. All in all, the house is built to stand long and vigorous usage. Sliding doors, pier placement and lighting are other items of the structure which have been planned with careful forethought.

In regard to his own experience, Mr. Kamm states:

"I have studied the problem of the properly constructed boat house for about nine years while in residence at Eagle Lake. I have seen boat houses come and go with the breaking of the ice in the spring. This will not happen to my boat house."

The appearance of Mr. Kamm's boathouse is extremely pleasing when viewed from any angle. Its quality is well in keeping with that of his fine runabout and a structure of this sort would be a credit to any waterfront. Boat owners who have been satisfied in the past with shelters of questionable value as a boat protection and of perhaps even less value as an asset to the appearance of their property, might well emulate Mr. Kamm and construct a boathouse that would really do justice to their boats.



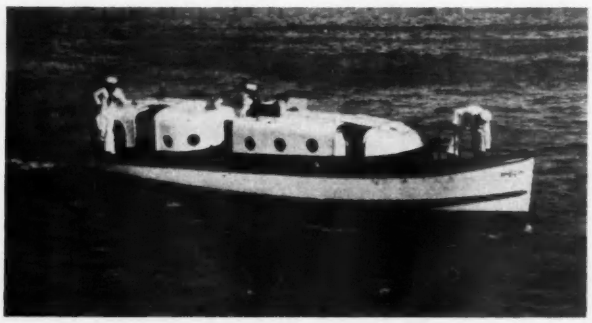
A Captain's Gig, 35 feet in length

MOTOR BOATS OF THE NAVY

How the Adoption of Gasoline Engines Has Added to the Effectiveness of the Fleet and Comfort of the Crews

By LEWIS R. FREEMAN

AT the time of the Spanish War, and for many years after, there was not a motorboat in our own or any other navy of the world. Even steam boats were rare enough three decades ago, these being carried by only the cruisers and battleships. With the perfection of the internal combustion engine, some of the more far-seeing officers began to realize the advantages of the motorization of the craft employed in transporting officers, men and supplies, but it was not until about the time of the outbreak of the World War that a comprehensive program to this end was under way. Hampered by governmental red-tape progress was slow at first, with considerable difficulties developing during the initial stages from unsatisfactory motors.



Officer's 50-foot motor boat, 13 knots speed

A good deal had been accomplished by 1917, however, so that all of the battleships sent across to form the Sixth Battle Squadron of the Grand Fleet were provided with a very effectively motorized lot of small boats. Outside of a lot of special anti-submarine patrol craft, there was not a motorboat in the British Navy at this time. The Admirals' Barges, the Captains' Gigs and the various types of officers' boats were all steam driven. These were all fine, useful little craft, splendidly maintained and handled and very dependable, but comparatively slow. The men were transported in large open boats, which were occasionally towed by steam but were usually propelled by oars. These, of course, were slower yet. In smooth water they were capable of fair headway; against head wind and waves I have seen them making two or three knots sternway with ever oar double-banked by husky tars.

There were a number of things about the newly-arrived Yankee units which greatly interested the British veterans of the four-year North Sea vigil. The cage masts were one of these; quick loading and firing another. But most of all, as I recall it now, it was the way in which the smart and speedy American motor craft slashed and reslashed Scapa Flow with their billowing wakes, cutting circles around the steamers and barges of the British battleships, that awakened the greatest admiration. It was not only the flashing speed of the motorboats, but also

Twenty-one foot motor dory carried by destroyer

Motor launches carrying stores from supply ship

the way in which they were almost instantly ready in emergency that aroused the envy of the crews of the steam-craft crews. This was especially in evidence when the Grand Fleet came in from a P. Z. or general sweep of the North Seas. The Yankee boats were usually launched and landing men on the beach before the British boats had steam up. I recall especially Admiral Sir John de Robeck's observing what incalculable value craft of such speed and handiness would have been to his Fleet at Gallipoli.

The Yankee boats were good sea boats, too. The fact that they were usually wetter than British boats of a similar type was due only to their greater speed. Throttled down they were just as comfortable bucking head seas as were the slower steamers and barges. There were many winter days at Scapa, of course, when all the light craft had to be taken in and inter-ship communication carried on only with trawlers and drifters.

The British carried on to the end of the War with their steam boats but for their major ships laid down since then a number of motor boats have been provided. These are, I believe, confined mostly to officers' craft, with steam, sail and oars still figuring as motive power in the heavier open boats used for transporting men and stores.

In what might be called the service boats of the American Navy motorization is practically one hundred per cent at the present time. The table at the end of this article, prepared for me through the courtesy of Admiral William V. Pratt, Commander-in-Chief U. S. Fleet, gives the various types of motor boats now in use, with their respective lengths, draughts, speeds, purpose for which used and engine with which powered.

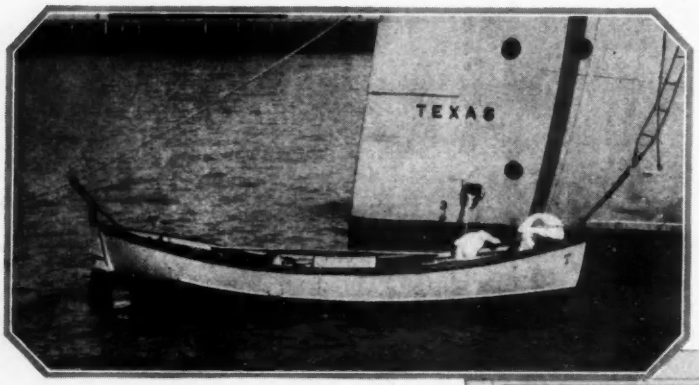
The types to which the term motor boat is applied, are used principally for carrying officers and for special dispatch service. They vary in length from twenty-six to fifty feet, and in speed from thirteen to eighteen knots. The finest and fastest of these are Flag Officers' Barges, which have a length of forty feet, a speed of eighteen knots and are powered with Van Blerck J8 150-horsepower motors. Sterling 145-horsepower motors are used in the fifty-foot officers passenger boats and the thirty-five-foot gigs. Although both of these motors have given splendid service the present plan calls for the use of the V-type Navy in all new boats.

Practically the only craft in the Navy not equipped with motors are the pulling boats used for racing. Most of the open boats are stepped for a mast and fitted to carry sail in emergency, but in the regular grind of work the motor is the only power used. The largest of these, which are carried by the battleships, have a length of fifty feet and have a capacity of thirteen tons of stores or 190 men on a draught of three feet. It will be noted from the table that all Navy boats, irrespective of type, size or speed, have a uniform draught of three feet.

On even the crowded decks of the destroyers place is provided for a compact little motor dory, which has a speed of eight knots under its Navy Norfolk 20 horsepower engine. These little boats are useful only in fairly well protected waters, their low freeboard making them too readily swampable for service where any sea is running. The commander of a squadron of destroyers is provided with a motorboat

similar in type to a Captain's Gig, but this is carried on the Tender.

The motorization of the service boats of the submarines is now as complete as is that of those of the larger vessels. The first primitive submarines carried no boats save crude little canvas affairs, like folding bath tubs in shape and about as seaworthy. Then room was found for fat little wooden dories as the size of the underwater craft was increased, and it was not long before outboard motors were used to push these around. The first Navy outboards were bought from Ship's Service or Recreation Funds, but at the present time an outboard is a part of the regular equipment of the S-type submarines, which constitute by long odds the most numerous class now in commission.



A motor lifeboat at the stern of the battleship

With the building of the great V-type of submarine, three hundred and fifty feet and more in length and from two to three thousand tons displacement, it was practicable to provide for a regulation Navy motor boat. On the first three V's commissioned the motorboat is carried in a sort of house located almost amidships near the conning tower. As this house, like the conning tower, is not closed to the sea during submergence, it has been necessary to provide a special water-tight housing for the motor. On the new V-4, on which I voyaged a part of the way from Panama to San Diego after the recent winter maneuvers, the greater length and beam has made it possible to house the motor boat without breaking the flush lines of the almost three hundred and eighty feet of teak deck of this remarkable mine-layer.

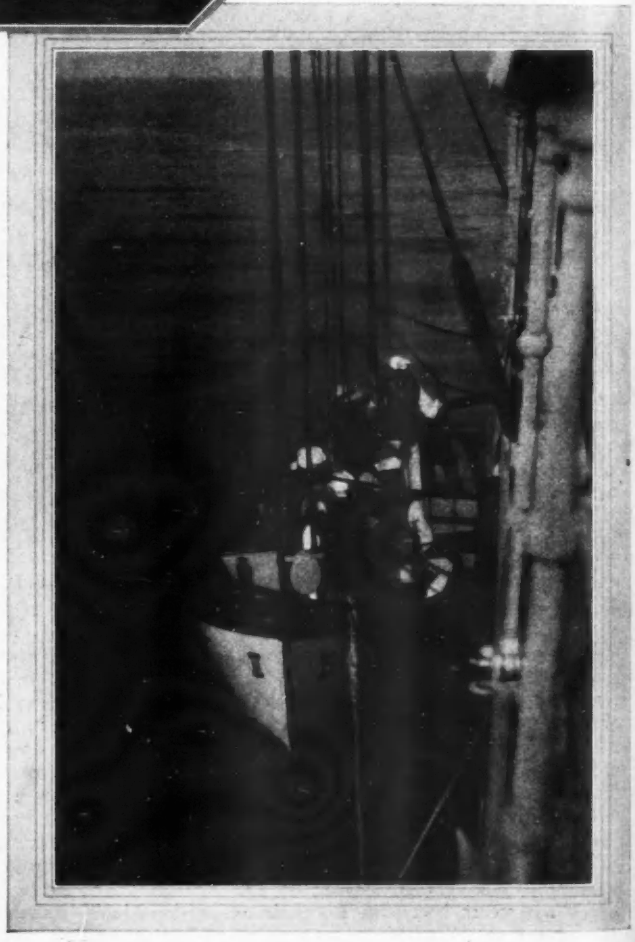
By far the most useful all-purpose craft among the service boats is the twenty-six-foot motor lifeboat. One of these is swung outboard on davits from every battleship, cruiser, tender and every other large craft to be instantly ready for emergency use. In a single afternoon I saw a motor lifeboat of the California used to carry an appendicitis patient to the Hospital Ship Relief to be operated upon, to rush dispatches to another ship of the squadron, and to pick up the pilot of an airplane that had missed the slick in landing and buried itself with tail in the air as a consequence. Returning on the Submarine Tender Holland, the motor lifeboat was practically in daily use.

The launching of a motor lifeboat from a warship under way is one of the prettiest pieces of routine work imaginable. The motor is tuned up and everything made ready for a crew of three. Each of these, with every officer or man taking passage in the boat, wears a kapok life preserver of the regulation Navy type. As each man climbs to his place in the boat from the rail of the ship, he grasps one of a number of knotted ropes which are made fast above and dangle to the water. This hold enables him to keep his balance and to save himself in case the boat is capsized or swamped on striking the water. He keeps his hold on his rope until the boat is free of the falls and under way.

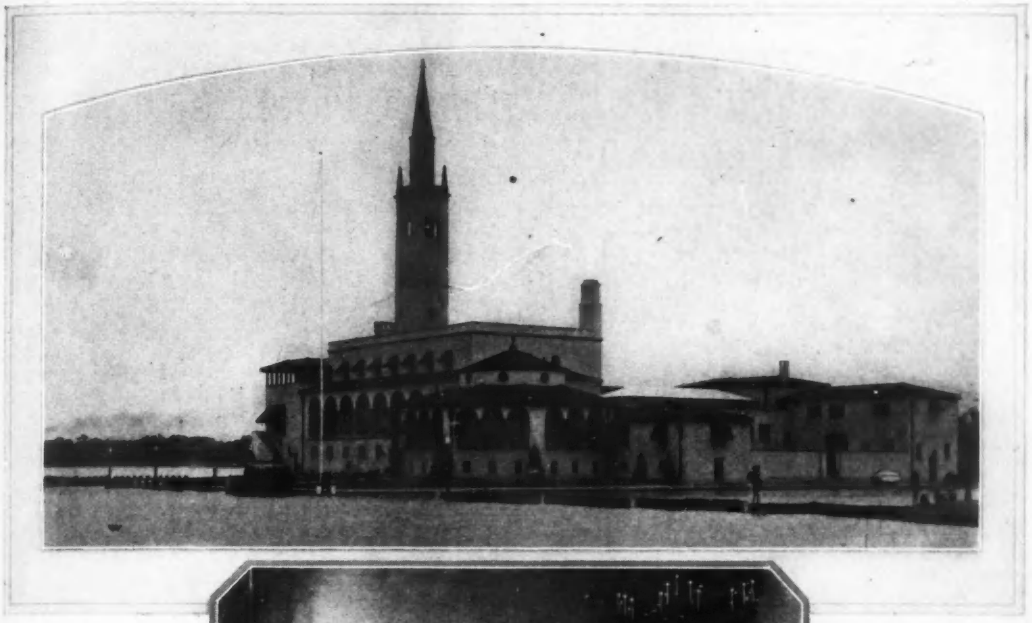
The boat is lowered to within a few feet of the water. Then the order "Start your engine" is given. The falls are cost off fore and aft the moment the keel touches the water, and the instant the kick of the propeller gives headway the boat is sheered sharply out away from the deadly suck of the hull and the ever imminent danger of being crashed against the side.

On account of their rounded sides

(*Continued on page* 100)



Starting to lower away a motor lifeboat of the U. S. S. submarine tender Holland



The handsome new Grosse Pointe Clubhouse formally opened on July 4 is considered one of the finest examples of Northern Italian architecture of the eighteenth century style

The clubroom, 80 by 50 feet, is finished in cream stucco walls with beamed ceiling decorated in various colors

GROSSE POINTE'S NEW CLUBHOUSE

Artistic Building on Lake St. Clair Dedicated Amid a Marvelous Celebration on July Fourth

THE Grosse Pointe Yacht Club put on the real Fourth of July celebration by dedicating the new $1,000,000 clubhouse that so majestically towers from a small island in Lake St. Clair, just off the edge of Detroit. This clubhouse of stucco and red tile roof is regarded as the finest of its sort in the country. It is a splendid example of Northern Italian architecture of the eighteenth century style, the campanile being copied from that of St. Mark's Cathedral in Venice. It was designed by the late Guy Lowell, of Boston, whose death robbed the dedication of an incident that would have made it international. Mr. Lowell had planned and partly arranged to have Sir Thomas Lipton as the club's guest on that occasion.

While the clubhouse is new, the organization is an old one, having held its charter for many years, during which the valiant band of skippers always had the vision of a fine home of their own. About two years ago it was found possible to go ahead with the work which has culminated in this magnificent clubhouse. An immense amount of dredging was done and inner and outer harbors were created. The clay was piled out from the shore and grew into an island on which the large building has been erected.

Lines of the exterior differ from those of any other yacht club. They are striking from any viewpoint and the building is a pleasing ornament to the long water front of Detroit and adjacent villages.

The interior has peculiar charm with effects so harmonizing that every room is a picture by itself. A grand stairway leads to the clubroom, in which are suspended wrought iron chandeliers from Italy, while the furniture also is a copy of antiques from that sunny land. Over the generous (*Continued on page* 104)

The protractor is oriented on the chart as shown, after which the arm is swung to lie along the boat's course

WHAT THE NOVICE SHOULD KNOW

The Use of the Compass, Chart, Protractor, Log and Lead— and the Method of Applying Compass Errors

By W. H. KOELBEL

PART VI

IN an earlier article on the subject of equipment, we spoke of the desirability of carrying on board certain instruments such as compass, charts, course protractor, etc., for the purpose of being able to navigate in thick weather and in strange waters with a reasonable degree of certainty.

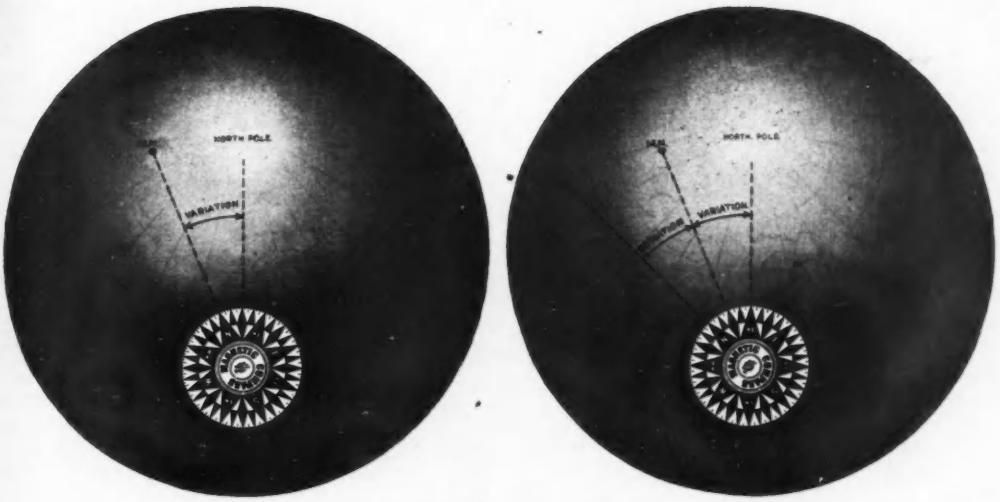
While navigation as such is a little beyond the scope of our discussion here, an understanding of the purpose and use of the simpler items of piloting equipment will be essential and may perhaps form the groundwork for a more intensive study later on.

In fact, the charts and compass are an almost indispensable part of the boat's equipment as they supply us with the means of knowing exactly where we are and how to get to where we want to go. Without them, our navigation is the poorest sort of off-hand guesswork and we are entirely dependent on the vagaries of the weather, in order to run courses successfully.

The compass is an invaluable little instrument that forms the basis of all sorts of navigation. However, it is not always thoroughly understood and is often blamed for errors which should really have been corrected and allowed for by the navigator. The occasions are rare indeed when the course as indicated by the compass is the one we are actually making good on the chart.

The construction of the compass is based on the theory that a magnetized bar of steel, if left free to swing, will point north and south—not to the geographical north and south which we are accustomed to think of when speaking in terms of the meridians of longitude which converge at the ends of the earth's axis, but to magnetic north and south poles, the locations of which are far removed from those of the true geographical poles. The magnetic north pole which is the center of attraction for all compasses is known to be located in the region just north of Hudson Bay.

Now in order to facilitate the naming and reading of all the various points of the compass, instead of guessing at them from their locations relative to the ends of a simple magnetic needle, a round compass card is used with all the points designated on its



Illustrating the difference between compass, magnetic and true courses. At the left the card is shown pointing to the magnetic north, a westerly variation of two points. At the right the card is further deflected by a two-point deviation, a total error of four points

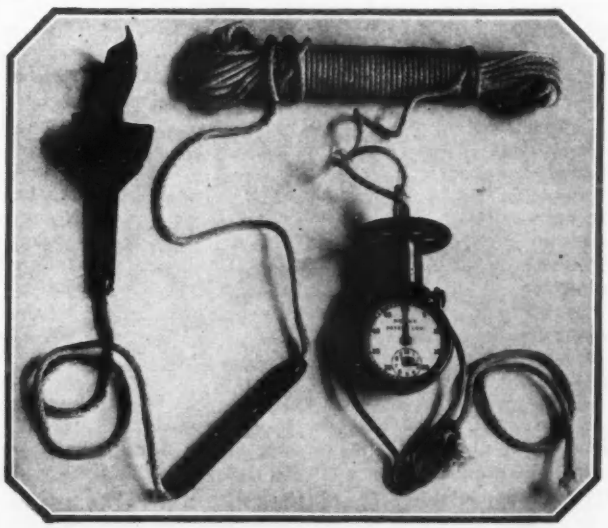
circumference and several parallel magnetic needles attached to it in the north and south line. When this card is pivoted at the center, the needles immediately swing and draw the north point of the card to the magnetic north. The card is contained in a bowl of liquid composed of a mixture of 45% alcohol and 55% water, which tends to float the card and makes it pivot easily and at the same time it steadies it horizontally when the boat is rolling. The bowl in turn is swung in gimbals which prevent it from being affected by the motion of the ship.

Whenever possible, the compass should be located over the keel in the center line of the boat. A vertical black mark, known as the lubberline, is found on the side of the bowl and the compass should be so arranged that a line through the lubberline and center of the card is exactly in line with the centerline through the keel. If it is necessary to locate it to one side, these lines should be kept parallel in order that the lubberline will indicate at all times the position of the ship's head.

There are two different methods of designating the points of the compass—by points and degrees. In the point system, the circumference of the card is divided into 32 points. Four of these are called cardinal —north, east, south and west—and the four midway between the cardinals are called the intercardinals — northeast, southeast, southwest and northwest. Naming the points in succession is called boxing the compass, and every boatman should have at his finger-tips the 32 main points at least. They are: North, N by E, N N E, N E by N, N E, N E by E, E N E, E by N, East, E by S, E S E, S E by E, S E, S E by S, S S E, S by E, South, S by W, S S W, S W by S, S W, S W by W, W S W, W by S, West, W by N, W N W, N W by W, N W, N W by N, N N W, N by W, North. For accuracy in designating courses, further subdivisions are made into half and quarter points.

In the calibration of the compass card by degrees there are two systems—the old and the new. The entire card, of course, represents 360 degrees. In the old card the numbers start at 0 from north and south and run up to 90 at east and west. The principal advantage of this system is the ease of reversing courses. For example, north 20 degrees east would be reversed to south 20 degrees west. According to the new scheme of numbering by degrees in use in the Navy today, we start with 0 at north and run around to 360 by way of east.

We have mentioned that the compass rarely gives accurate true directions unless corrected for various errors to which it is subject. These errors are variation, deviation, and local attraction. Now it is readily seen that since the magnetic and geographic north poles do not coincide, the compass of a boat on any part of the earth's surface except on a circle which passes through both poles, will point to the magnetic north but not to the true north. This angle between true and magnetic directions is known as variation and is a variable factor for different points on the earth's surface and for the same point in successive years. For example, the variation at present in the vicinity of New York is approximately 12½ degrees and is in-



The patent log consists of a rotator, a weight to keep it below the surface, a length of braided line and a dial

creasing annually at the rate of 5 minutes due to the shifting of the magnetic pole, while the location of the geographic or true north remains fixed. Around New York, the compass needle is deflected toward the west of true north and consequently the variation is called westerly. When it is pulled to the right or east, the variation is easterly.

Our charts always show one or more compass roses, as they are called. These are two concentric circles, the outer one of which is divided into degrees with 0 at true north to agree with the meridians of longitude, and the inner one divided according to the points of the compass with north showing the direction of the magnetic pole. The difference between the two north points shows at once the amount of variation and it is also stated in the center of the rose in terms of degrees and minutes, together with the amount of annual change in minutes.

This variation is a constant amount for all ships in the same locality and will be the same for the little cruiser and liner alike. But there is another variable factor which deflects the compass card, that is present to a greater or lesser extent in every boat that contains any iron or steel. This deflection is known as deviation and it depends entirely on the amounts of iron and steel that the vessel contains and the parts of the boat in which they are located with respect to the compass. Large masses of iron such as the engine, stoves, tanks, etc., have a strong influence on the needle, either positive or negative, and the further away from such objects the compass is placed, the better. A peculiar feature of this deviation is the fact that it is generally different for every heading of the boat. Where it may be only a small fractional part of a point on a northerly heading, for example, it may amount to several points on a southerly course.

The problem, then, is to determine what the deviation is for each boat and then make suitable allowance for the error in laying courses. When the services of an experienced compass adjuster are available, practically all of the error can be eliminated. The procedure is to put the boat on a number of different headings, the exact bearings of which have been established from the chart. This process is known as swinging ship. The boat is first put on a heading of north magnetic by means of ranges on shore, and the heading of the boat as indicated by the compass is noted. Small bars of steel are then placed around the compass in such a manner that the pull they exert will neutralize the effect of the deviation. Then the boat is headed south and the process repeated.

Two methods of heaving the lead. The coil of line may be held in the hand as shown above or allowed to run from the deck

As many different headings as possible are worked out in the same way, so that after the adjustments have been made, the amount of deviation which is left is not very great, and this is noted on a card. The correct magnetic headings are given in one column and alongside of them are shown the amount of deviation and the compass courses which must be steered in order to make good the magnetic courses. It is quite important when these corrections are being made that all iron and steel objects be in their proper locations. The shifting of anchors, anchor chain, and so on, might be sufficient to undo all the work of correction.

There are several simple ways in which a boat owner may determine deviation himself. It is frequently done by laying off on the chart as many courses as possible at points where definite landmarks, buoys, etc., are available to check the course so as to be certain that the course run is identical with that plotted on the chart. By referring to the magnetic compass rose on the chart, we might find that a course between a given buoy and lighthouse is due N. E. In running the course, the compass perhaps shows a heading of N E by N. It is apparent then that the north point of the card has been pulled to the right or east one point. This means that in order to make good a N E magnetic course we would have to allow for one point easterly deviation and steer N E by N, according to our compass. So we take a card and put this information in a table for ready reference.

We do the same thing for as many courses as we are able to locate definite landmarks for, keeping accurate record of the deviation on each course. One course on the chart will do for two headings as we can run it in one direction, and then turn around and run back over the same one. This is quite necessary as it does not follow that we can simply reverse the results secured one way and get the figures for the opposite heading.

Several cautions must be observed in making these runs. The water must be as nearly still as possible. If there is any tide or wind to set the boat off its course, the figures will be of little value. The point that we observed before about having all iron objects in their proper places still holds good, and finally, we must be careful in using buoys (*Continued on page 66*)

Boats now under construction in England for International 21-foot, 335-cubic inch class
These are all to be powered with Scripps 331-inch engines

EIGHT ENGLISH BOATS BUILDING FOR INTERNATIONAL CLASS

Construction Already Started on Craft to Race in Florida Next Winter

SIR HENRY SEGRAVE of London, owner of Miss England, without question the fastest single engine hydroplane in the world, which boat defeated Gar Wood's Miss America VII in a match race at Miami Beach last March, was so impressed with racing conditions for winter competition at Miami Beach that he promised to return for another race next winter. In addition he gave assurances that not only would he bring over to America at least one racing boat of his own but stated that he felt that when he returned to England and told the English sportsmen of the wonderful course in Florida and the fine hospitality shown him on his recent visit to that State that several other motor boating enthusiasts would decide to build craft and bring them to America to race at Miami Beach next winter.

Before Major Segrave sailed for England in April, he had several conferences with officials of the American Power Boat Association with the thought in mind of drawing up rules for an International restricted class so that both English and American sportsmen could build boats to the same restrictions and thus meet on an equal basis. The main idea was to select a type of boat and design that would not be too expensive to build and race, yet would give a good turn of speed and be seaworthy and of some use for ordinary purposes other than racing.

The rules agreed upon specify a boat of not less than 21 feet in length but with no other hull restrictions, the power plant not to have a piston displacement greater than 335 cubic inches or to develop more than a maximum of 135 horsepower under any conditions. In order to assure those who decide to build boats for this class that no specially built and expensive racing motor would be used the makes of motors to be allowed in the racing boats were specified.

That Major Segrave and his English friends are serious in their intentions to build boats for this class and race them at Miami Beach next winter is shown by the illustration on this page. From this it will be seen that eight boats are well along in construction. As the English have no stock motors of 335 inches at the present time it will probably be necessary for them to use American motors.

It is expected that at least six or eight American sportsmen will build boats to the class restrictions to race the English boats in Florida this coming winter. Already Commodore Harry B. Greening of Hamilton, Ontario, and Carl G. Fisher of Miami have indicated their intentions to *(Continued on page 132)*

M. Rosenfeld

The Matthews 38-footer owned by Slater Washburn which won the Express Cruiser events

NEWPORT RACES THRILL THOUSANDS

New England's Biggest Regatta Attracts Over One Hundred Starters on New Race Course

THE annual Newport, Rhode Island, regatta already has become one of the most important events of the Eastern racing season, ranking second only to the Gold Cup, Miami Beach and Detroit regattas. In the number of events and actual starters, Newport already surpasses Detroit and if the New England city could get a few of the country's fast hydroplanes to compete in their city, there would be no disputing their claim for Eastern supremacy.

The Newport regatta, as an annual fixture, is only three years old. The 1929 races held early last month were a great improvement over the 1927 and 1928 events from both the viewpoint of the racing man and spectator. The location of the race course was moved this year to a cove on which the new Ida Lewis Yacht Club is located giving protected waters in all kinds of weather. This much was appreciated by the racing men to whom the rough water on the old course did not appeal.

The Pigeon boat, winner of Class E, Division 2

While in most of this year's racing events held to date the outboards have been the main attraction, yet at Newport, while fully a hundred outboards participated, the runabout provided fully as much excitement. Newport, since its regatta was first started three years ago, seems to be the competition on which the eyes of most of the runabout builders are focussed. Coming as it does about mid-season, after the boat builders have had a chance to work off all the rough spots on their latest models, it offers the first official opportunity for them to get together to decide the mythical championship of the various so-called stock runabout classes. This year we found the dealers of such craft as Gar Wood, Hacker, Sea Lyon, Chriscraft, Dart, etc., entering. While there was the usual discussion as to stock and non-stock, yet, as the rules did not define either a stock runabout or a stock motor, the judges decided to allow all to compete on an equal basis, provided, of course, they were within the manufacturer's horse power rating of the different classes.

On the whole, the Chriscraft won the greatest number of events although in the 250 horsepower

class they lost a chance for the championship by crossing the starting line ahead of the gun.

Among the outboards, it was a great day for Baby Whales, Cute Craft and Johnson motors with Penn Yan and Pigeon boats getting a share of the wins.

In the express cruiser class, a Matthews 38-footer owned by the Honorable Slater Washburn of Worcester, Massachusetts, was the winner. The Toppan cruisers performed perfectly also but due to the fact that they were unable to start in the first day's events they had no chance to win first place.

Most of the events consisted of two heats of 2½ or 5 miles each. The course measured 2½ miles per lap with easy turns at each end. The start and finish lines were located in front of the Ida Lewis Yacht Clubhouse.

In the 5 mile event for stock runabouts of over 15 feet in length, powered with stock motors of not over 82 horsepower, Temptress owned by D. H. Paton was the winner in both heats with Motorcraft owned by W. J. H. Dyer finishing in second position.

Baby Whale, owned and driven by Ross Maddocks, winner of Class C, Division 2 and the Grand Free-for-All

In the event for stock runabouts of over 21 feet in length and under 125 horsepower, Chriscratt driven by Hamilton Smith finished in first place in both of the five mile heats. Sea Lyon driven by Howard W. Lyon finished in second position but Mr. Lyon was disqualified in the first heat for having only one person aboard. Second position, therefore, went to Sheldrake owned by W. J. H. Dyer.

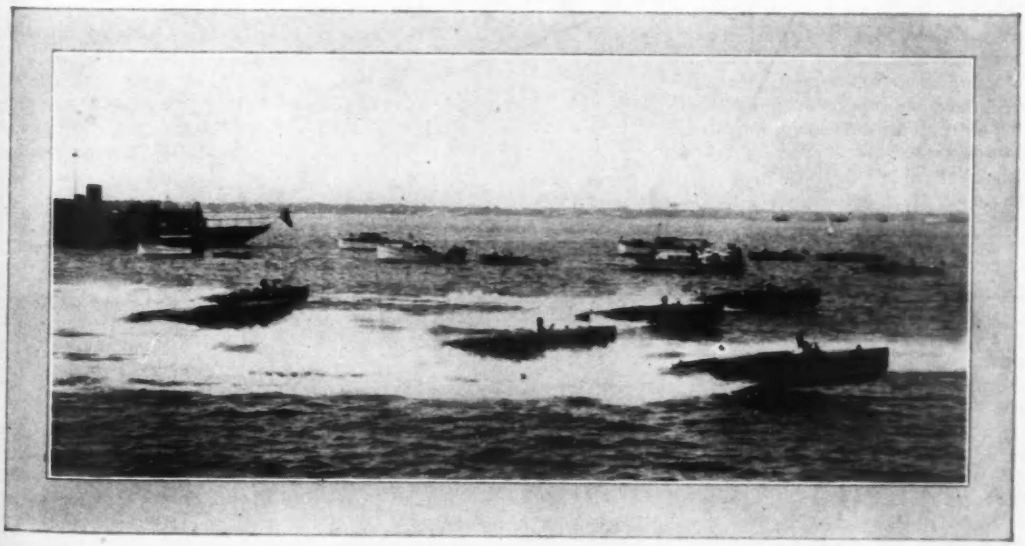
In event No. 3 which consisted of two heats of five miles each for stock runabouts of over 25 feet in length, powered with motors of not over 150 horsepower, Miss Gray Gables, a Chriscraft powered with a Kermath motor, owned and driven by A. H. Waitt took first position in the final scoring but was tied on points with Chriscraft driven by Bernard Smith. Mr. Smith's boat took first in the first heat and second on the second heat but as his total elapsed time was greater than that of Miss Gray Gables, first place was awarded to the latter boat.

The event for stock runabouts of over 25 feet in length and powered with motors of not over 200 horsepower attracted 12 starters. Chriscraft driven by Charles Smith finished first in both heats. Betty, a Hacker runabout, finished in second place and Miss Gray Gables in third position.

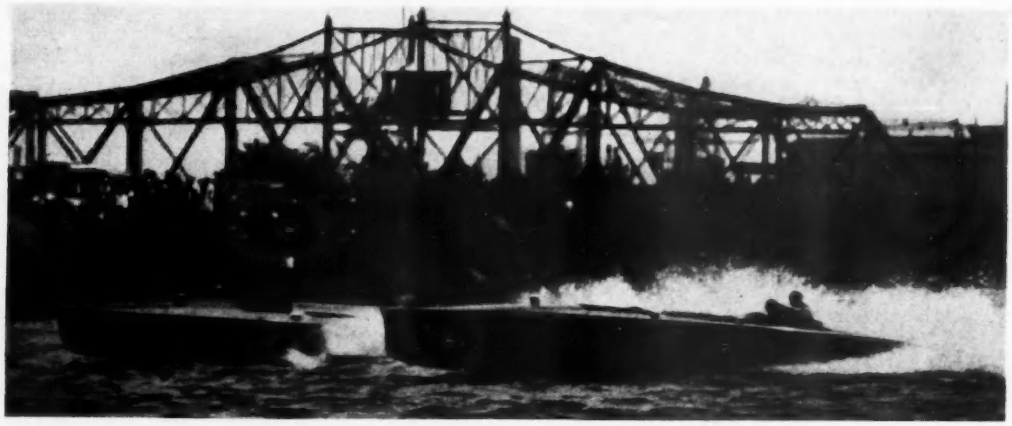
In the 250 horsepower class, Betty, owned and driven by Lou Pierce of Providence, Rhode Island, finished in first position, with a first place and a fifth place to his credit. Chriscraft driven by Hamilton Smith also took a first and a fifth in the two heats but as the total elapsed time for the two heats for this boat was greater than that of Betty, Mr. Smith had to be content with second place. Third position was also won by a Chriscraft, owned by G. W. Moise. Fourth position was taken by the Chriscraft driven by Charles Smith.

In the 27 foot, 250 horsepower class, Chriscraft also proved the winner. This time the Chriscraft driven by Jonathan Brown took a first and second position. The first 5 mile heat was won by Walter H. Moreton of Boston in his Hacker Dolphin, but as Mr. Moreton did not start in the second heat, he forfeited his chance for first prize. Lou Pierce in his Hacker built Betty finished in second position.

In the Displacement Boat Free For All, C. Roy Keys driving his Curtiss-Wilgold III had little difficulty in winning both of the 7½ mile heats. Mr. Keys' new boat Carenaught, nearly a duplicate of Curtiss-Wilgold III, took second position in the second heat but did not start in the first heat. Therefore, second position in the finals went to Chriscraft driven by Hamilton Smith. *(Continued on page 108)*



Start of one of the stock runabout classes at the Newport regatta



Curtiss-Wilgold III and Carenaught in the first heat at the New Bedford Regatta. Both of these boats are owned by C. Roy Keys of Buffalo

NEW BEDFORD HOLDS IMPORTANT REGATTA

Outboards and Displacement Boat Provide Two Days' Entertainment

By ALBERT COOK CHURCH

THE third annual motor boat regatta of the New Bedford Yacht Club, held on August 5 and 6, proved to be the most successful yet held by that organization and was witnessed by thousands of people from all points of vantage on both sides of the river and the New Bedford and Fairhaven bridge, which at times was almost choked with traffic. As the course was but two miles in length, no records were broken, but fast time was made by all the competing classes, especially the outboard division.

While there were fewer entries than expected, all the classes were represented by the foremost drivers in their division with the exception of the 151 class, Robert Huntley's Miss Buffalo being the only visiting entry to appear. A local boat was entered against her, but she could not be tuned up sufficiently well to make a very impressive showing.

A dozen classes competed, including three for runabouts, one for displacement craft, the 151 class, and seven for the various classifications of outboards. As expected, the outboards provided the fireworks, and the competition in the grand free-for-all for the Colonel E. H. R. Green trophy was especially keen, developing into a three cornered fight between Malcolm Pope of Winterhaven, Florida, H. Ross Maddocks of Boston and Al Buffington of Fall River.

Pope, driving a Bossert Pirate Chief, got into the game early and started things by beating out Ross Maddocks by one second in the first heat. This was a thriller all the way from start to finish, with the final result in doubt until the gun, as Maddocks shot past Pope like a rocket at the tape.

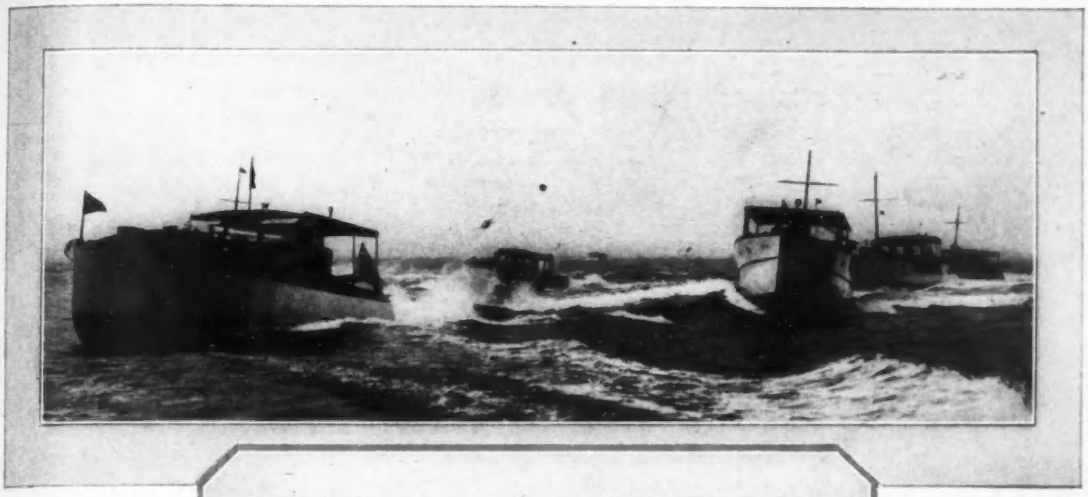
Maddocks, driving a Baby Whale, had the faster boat but seemed to be well back from the line at every start, and was obliged to drive through the wash ahead of

(*Continued on page* 118)

Albert Cook Church

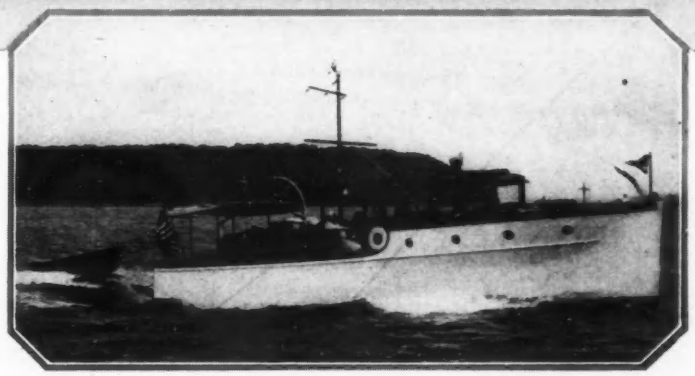
Russell Stearns, winner of Class B, Division 2

Mrs. Frank Hickey of Shrewsbury winning Class A, Division 1, driving the Baby Whale, Zev



M. Rosenfeld

Shortly after the start of the Cruiser Championship Race before the fleet had scattered



Agawam III, the champion, W. C. Baldwin's 45-foot Dawn cruiser was handled throughout the race by Miss Evelyn Baldwin

AGAWAM III—CRUISER CHAMPION

Fine Fleet of Cruisers in Closely Contested Race of Fifty Miles

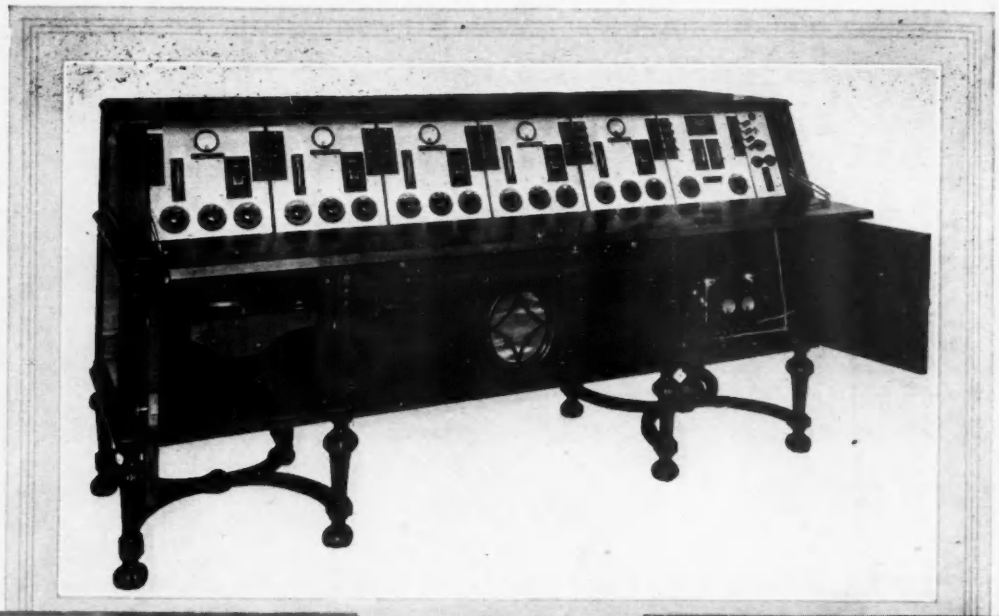
Again Shows Merit of New Racing Rules

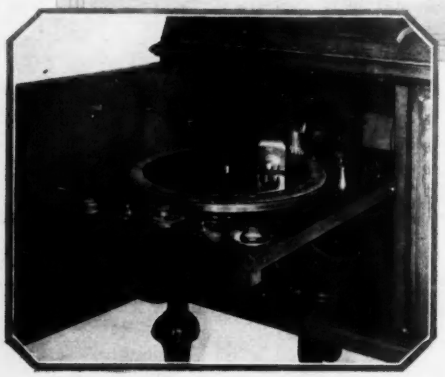
AFTER the successful conclusion of the cruiser race of the New York Athletic Club to Block Island, the devotees of cruiser racing were keenly interested in the further performance of the new racing rules. Further opportunity to try these was presented in the fifty nautical mile race for the cruiser championship of North America which was held on July 27. This race was a dual event with competition for both the handsome cruiser championship trophy which was in the custody of the New York Athletic Club and the Hunt Trophy in charge of the Colonial Yacht Club. The cruiser championship was decided according to the measurement rule handicaps of the American Power Boat Association while the competition for the Hunt Trophy was decided by the past performance rule. Fifteen odd cruisers had signified their intention of taking part in these races and promptly at noon fourteen fine cruising boats crossed the starting line off Huckleberry Island and proceeded down the Sound to Stratford Shoal returning thence to a finish line in Lloyd's Harbor. Contrary to the conditions encountered in the Block Island Race, the weather was not quite as perfect, although it could not be called bad. A southwesterly wind which blew contrary to the current kicked up a nasty little sea and hampered some of the boats to a slight extent.

The day before the start involved much discussion as to the probable winner and the wise ones indulged in much speculation. Sea Dream IV, Capt. Larner's new Elco cruiser seemed to be the favorite by reason of her win in the Block Island Race two weeks before. Others favored Capt. Baldwin's Dawn cruiser Agawam III, and still others were equally certain that their favorites would show up as the winners. The Sheepshead Bay contingent was strongly represented by several fine cruisers headed by Idler III, Paducah, Suzanne and Evader.

As in the Block Island Race the corrected times of finish were again very close together and the difference in time of the first seven boats to finish was less than twelve minutes. When it is considered that these boats varied greatly in size and speed, the close finish times bears out the accuracy of the handicap rule and confirms the excellence of the work done in preparing it.

A feature of this race was the excellent work of Miss Evelyn Baldwin, young daughter of the owner of Agawam III in piloting this boat throughout the entire 50 miles of the race. This Dawn cruiser powered with a pair of (*Continued on page* 128)

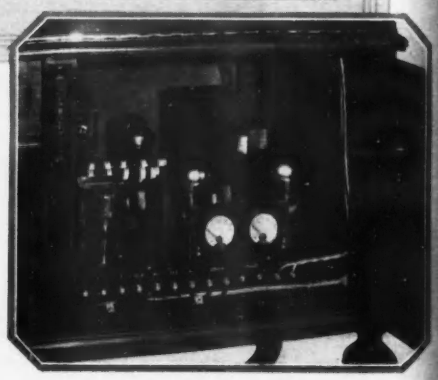




The Leutz Silver Ghost receiver in console dress, so that it may be used in the salon of the finest yacht

When there is a dearth of radio programs the phonograph feature is brought into play

Powerful amplifier of the Silver Ghost



IN TUNE WITH THE WORLD

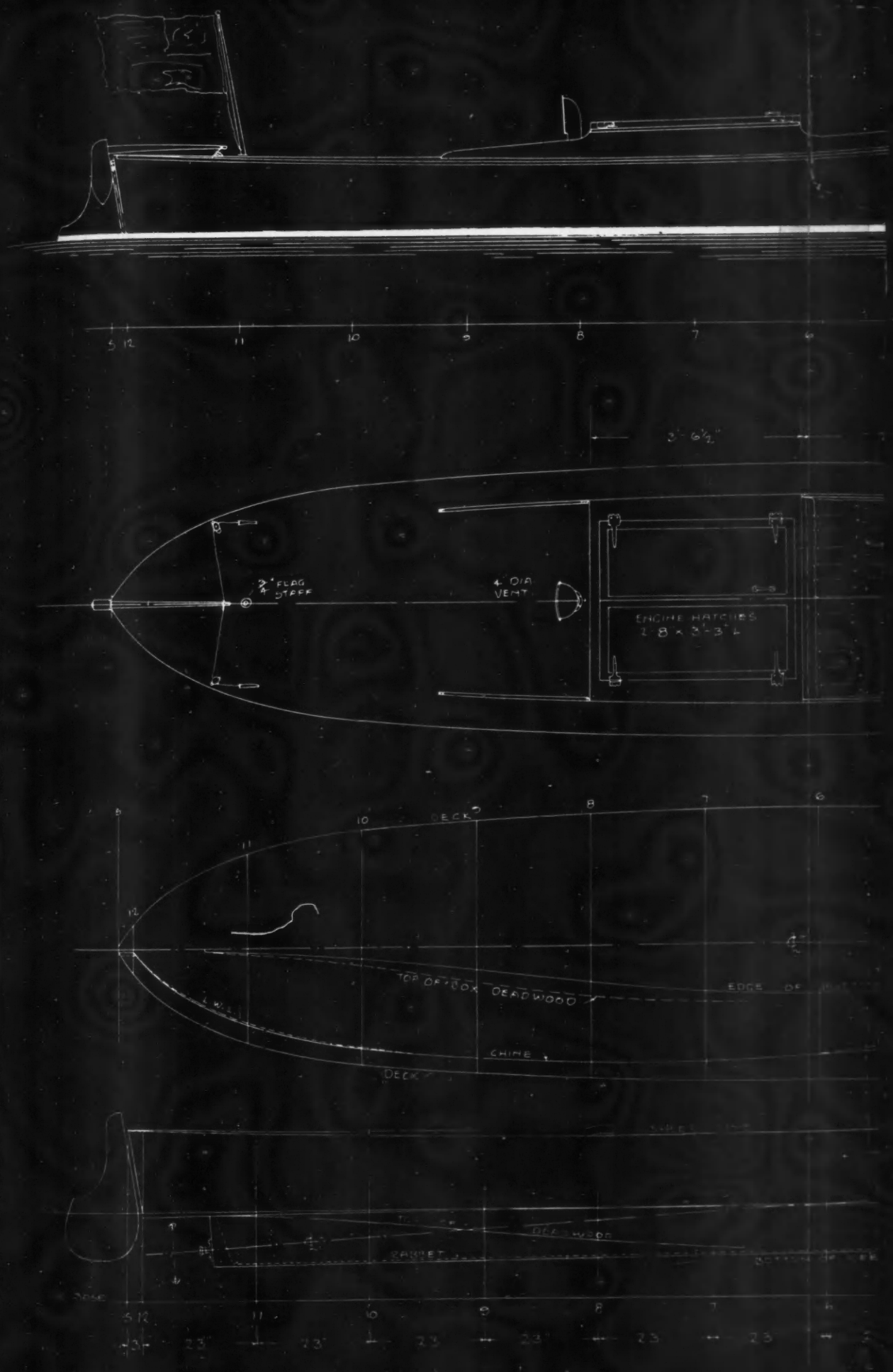
Recent Developments in Radio Reception Bring New Life to Radio Entertainment and News Service Aboard the Small Boat

By C. R. LEUTZ

THE idea of a man aboard a small boat—a bobbing cork on the limitless sea—keeping in contact with his fellow men by means of the intangible thread of radio, has always stimulated the imagination. The smaller the boat, the more appealing the thought. Surely the owner of a small cruiser gets more of a thrill operating his own set than does a passenger on an ocean liner when paying a visit to the ship's radio shack. Yet in spite of the rapid development of broadcast receivers, numerous drawbacks still exist in this field of radio for the small boat, prime among which is the fact that the boat owner only too often selects a broadcast receiver which is intended for entirely different purposes.

Let us take the case of a sizable motor boat—not the smallest type, but a fair-sized cruiser with really some room after the very necessary engine, fuel tank, passengers and other essentials have been accommodated. Because of the limited antenna that can be erected aboard the moderate-sized boat, it becomes immediately apparent that a sensitive radio set is required. The usual broadcast receiver, intended for the reception of powerful local signals, is obviously out of place here. Yet it is true that reception is far better on water than on land, so that, even with the limited antenna, the reception is apt to be quite good with a sufficiently sensitive receiver.

Aside from the limited antenna, which may or may not be a drawback, the next consideration is the wide range of service which may be desired on shipboard, as contrasted with the comparatively simple requirements of the average broadcast (*Continued on page* 104)


5 12
11
10
9
8
7
6
3'-6½"
2" FLAG STAFF
4" DIA VENT
ENGINE HATCHES
2-8 x 3'-3"L
DECK
TOP OF BOX
DEADWOOD
EDGE OF
CHINE
DECK
RABBET
DEADWOOD
BOTTOM OF
STEM
5 12
11
10
9
8
7
6
2'-3"
2'-3"
2'-3"
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2'-3"

GALILEE, A DOUBLE ENDED SKIFF

A Vee Bottom Seabright Design of Unusual Type But With Many Possibilities

Designed especially for MoToR BoatinG

By WILLIAM ATKIN

IT is many years since the men folks of Galilee, N. J., rowed off the beach in their 16 to 18-foot Seabright skiffs to earn a living handlining for blue and weak fish. Marvelous little craft these were, built with a straight flat and wide keel perhaps 20 inches in breadth amidships and tapering in an easy sweep to a pointed end both forward and aft. Above this flat keel the sides rose much after the manner of all round bilged craft. A characteristic of these able fishing boats was a bold sheer. The planking was always of the lap strake variety, frames being rather closely spaced, and not over heavy.

The Jersey coast at Galilee, and in fact nearly for its entire length, is a surf swept strip of sand. I have often wondered who the genius was who devised the original Seabright skiff for combined therein is a boat that is easily launched or landed in a wild surf; and is at the same time an excellent shoal draft sea boat, that is, providing the freeboard is kept reasonably low and the speed is not excessive.

When the gasoline motor came along it was installed in these rowing and sailing skiffs and so long as small engines were used these boats did well under power. As larger motors became available they were, of course fitted into the skiffs, but the old models were entirely unsuited for high speeds. Squat boards were tried in an effort to prevent the stern from squating and as time idled by, years, and years of it, the present day Seabright skiff was developed. These, however, while still retaining the straight flat keels, are not the homely little ships that worked the beach so many years ago at Galilee.

Some seven or eight years ago I flivered down the Jersey coast in quest of information concerning the beach and its fishing craft. All the great fleet that used to push off to fish earlier even than the dawn, have gone the way of most old fashioned things. Galilee had a few handliners left; Seabright the same; the Highlands one or two; Long Branch none; and so on down the line.

I came up with a man who still stuck it out and his skiff was an old timer powered with a single cylinder engine of five-horse power. During our conversation he told me about old Hub White, the owner of the very last rowing skiff to set off from the beach at Galilee.

Hub White was a typical old time Jersey handliner. His was the knowledge of the favorite haunt of every fish—the kind of knowledge that comes only of old age and careful observation; the kind of knowledge that cannot be taught or bought. Few have it. Such was old Hub, with a deep respect for the sea, and a real love for it.

One autumn morning Hub came, as was his life long custom, among the assembled boats on the beach. But he complained for the first time that, somehow, his breakfast did not set just right, and his tobacco had lost its zest. And he remarked that his darned old skiff seemed a lot heavier than it had ever seemed before.

"Hub," said most of the men on the beach, "you'd better stay home today."

But Hub knew better than they: hadn't he fished the beach for better than forty years? Didn't he know that today fish would bite sure as anything just over there a mile or so? Not far to row, and he'd rowed many a mile of sea in his time; seen many a strange sight along the never ceasing curl of combers that slid up on the beach. No, he'd feel right smart as the sun climbed higher and warmed things up a bit. Guess he'd go again today if the boys would help to hand his skiff down the beach. And so he went.

All around the coast line of these United States there is a chain of Coast Guard Stations. At Galilee there is one; number 100, I believe it is. Up in the observation tower of No. 100 there is always some one diligently scanning the sea within range of his glasses. For who knows just what the sea is going to do? It bears watching all the time.

Up in the tower of No. 100 the lookout kept an alert eye upon the fishing fleet. Those men out there had wives, children, and sweethearts back on the beach, and the Lord knows the men must be looked after! An hour or so after sunrise No. 100 reported that the man in the green rowing skiff, the only one out—Hub's skiff—seemed very still. Then for another twenty minutes or so No. 100 carefully watched the green skiff. Still its lone occupant moved not. So they sent a boat off and brought the green skiff in through the pounding surf with Hub in her stern dead!

Several years later I told Bill Nutting about Hub and he remarked that he could not think of a happier way or place for a sea faring man to die. And then Bill went off and did very nearly the same thing, dear old Bill Nutting, but how young he was when he went, not like old Hub.

Now having gotten a long way off my story about this new fangled Seabright skiff I had better get back to our Galilee. At least I have let out of the bag the motif for her name.

After looking over ancient and modern skiffs I came to the conclusion that a very useful, easily driven, able, and fast type of boat could be evolved by combining the flat keel and box deadwood of the original rowing skiff with the chine and flaring sides of the V bottom as developed by Mr. Hand. Playing with the idea in a concrete way we have the 24-footer whose plans accompany this article.

A study of Galilee's lines shows a very unusual kind of runabout and yet one that has many good features, especially from the standpoint of the amateur builder. All the framing is straight and the planking the same.

The keel is a long double-end plank perfectly straight fore and aft. There must not be any curve to this, nor should it be allowed to hog in the building of the boat. The forward sections are simplicity themselves, being simple straight lines drawn from the edge of the flat keel to the chine; thence to the sheer. The after sections show an *(Continued on page 64)*

BENBOW — A DEEP SEA AUXILIARY

Structural Details of An Able Sea Going Cutter Which Embodies Many Original Features

Designed Especially for MoToR BoatinG

By WILLIAM ATKIN

PART II

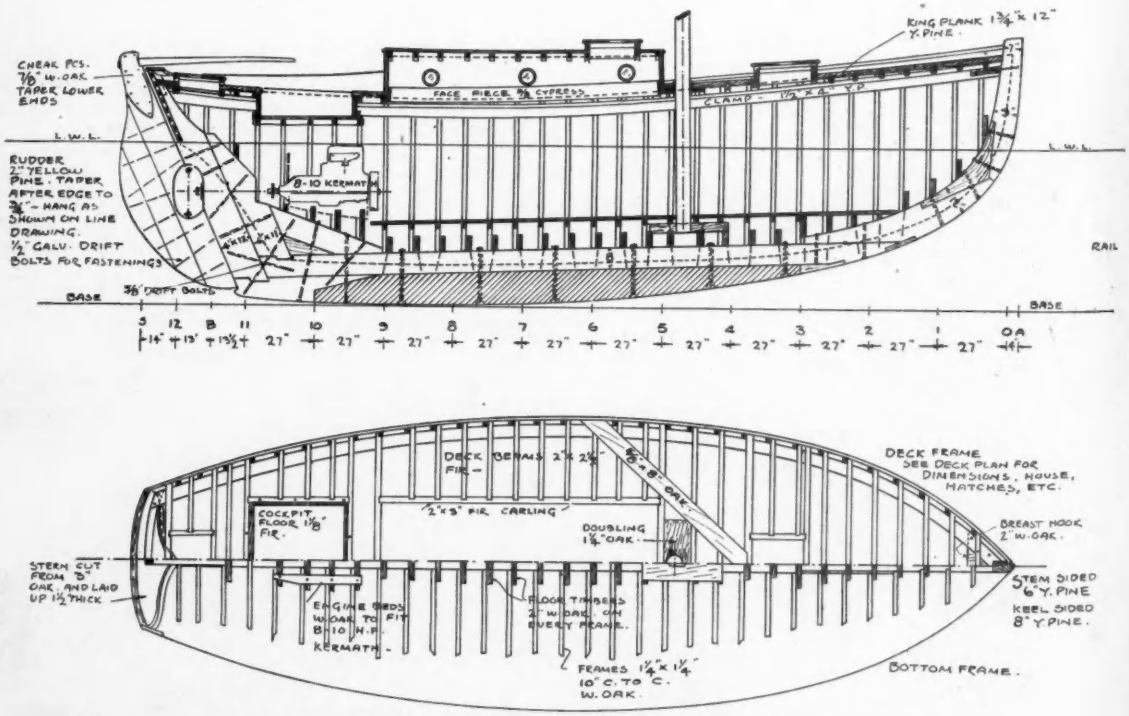
RIGHT now if you stop in at the boat yard of William E. Bunce, Huntington, N. Y., you will find Benbow planked, caulked, painted and decked; and there will be a man fitting her ceiling, which is ½x3 inch hard pine. When the cabin flooring is laid she will be about 50 per cent finished. By next month I shall have a photograph or two of this little auxiliary which I feel will be of interest to you all. Given luck in the matter of clear weather (the boat is being built outdoors) Benbow should be in the water by late September.

We are painting her white both above and below the water line, using Depaco anti-fouling white composition on the bottom and flat yacht white on the topsides. A boot top of black will indicate the water line; then we shall paint the bulwark rail black, too. With teak rail cap, hatches, and companion slide and a fawn colored painted deck Benbow will look, I think, especially well. I have found the anti-fouling white paint excellent, providing it is applied without thinning with various oils, turpentine, etc. And it must be laid over white paint that is thoroughly dry.

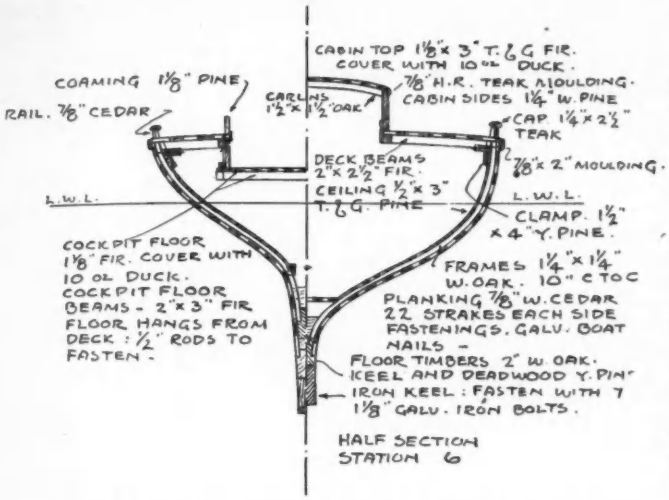
The planking on Benbow is ⅞ inch white cedar and the fastenings galvanized iron boat nails. Now usually boatbuilders counterbore for the nail heads and cover these with wooden plugs. In this job I specified fastenings without plugging the heads, because the planking is thin and by the time the counterbore is made there is less than ½ inch of wood between the underside of the nail head and the frame; ⅜ inch is a nearer gauge of this unless the fastenings are very carefully made.

Another thing while on the subject of planking of this thickness; I think it is a better plan not to drive caulking cotton into all of the seams. In this boat we had the garboard seam and the first seam next this caulked in the usual manner; but all the rest of the seams have three to four strands of cotton wicking run in with a caulking wheel. Now when the planking swells the seams will be perfectly tight without the possibility of bulging the planks and straining the fastenings. You know while a boat is being built and finished the planking dries out badly and it is a great mistake under these conditions to drive in caulking hard.

Butt blocks should be made from white oak about 1 inch in thickness and fastened with brass or galvanized iron screws. Now the butt blocks should be at least an inch wider than the plank to which it is being fitted and they should be a tight fit between the


KING PLANK 1¾" x 12" Y. PINE.
CHEAK PCS. ⅞" W. OAK. TAPER LOWER ENDS
FACE PIECE ⅝ CYPRESS
CLAMP - 1½ x 4" - YP
L. W. L.
RUDDER 2" YELLOW PINE. TAPER AFTER EDGE TO ¾" - HANG AS SHOWN ON LINE DRAWING.
½" GALV. DRIFT BOLTS FOR FASTENINGS
8-10 KERMATH
RAIL
BASE
⅜" DRIFT BOLTED
12 13 11 10 9 8 7 6 5 4 3 2 1 OA
14" 13" 13½" 27"
DECK BEAMS 2¼ x 2½" FIR
⅝" x 8" OAK
DECK FRAME. SEE DECK PLAN FOR DIMENSIONS, HOUSE, HATCHES, ETC.
COCKPIT FLOOR 1⅛" FIR.
2"x3" FIR CARLING
DOUBLING 1¼" OAK.
BREAST HOOK 2" W. OAK.
STEM CUT FROM 5" OAK, AND LAID UP 1½ THICK
ENGINE BEDS W. OAK TO FIT 8-10 H.P. KERMATH.
FLOOR TIMBERS 2" W. OAK. ON EVERY FRAME.
STEM SIDED 5⅝" Y. PINE
KEEL SIDED 8" Y. PINE.
FRAMES 1¼" x 1¼" 10" C. TO C. W. OAK.
BOTTOM FRAME.

Construction profile and plan showing the features of the 27 foot cutter Benbow


CABIN TOP 1⅛" x 3" T. & G. FIR. COVER WITH 10 oz. DUCK.
COAMING 1⅛" PINE
RAIL. ⅞" CEDAR
CARLINS 1½" x 1½" OAK
⅞" H.R. TEAK MOULDING.
CABIN SIDES 1¼" W. PINE
CAP 1¼" x 2½" TEAK
DECK BEAMS 2" x 2½" FIR.
⅞" x 2" MOULDING.
CEILING ½" x 3" T. & G. PINE
L.W.L.
L.W.L.
CLAMP. 1½" x 4" Y. PINE.
COCKPIT FLOOR 1⅛" FIR. COVER WITH 10 oz. DUCK.
COCKPIT FLOOR BEAMS - 2" x 3" FIR FLOOR HANGS FROM DECK : ½" RODS TO FASTEN -
FRAMES 1¼" x 1¼" W. OAK. 10" C TO C
PLANKING ⅞" W. CEDAR 22 STRAKES EACH SIDE FASTENINGS. GALV. BOAT NAILS -
FLOOR TIMBERS 2" W. OAK.
KEEL AND DEADWOOD Y. PINE
IRON KEEL : FASTEN WITH 7 1⅛" GALV. IRON BOLTS.
HALF SECTION STATION 6

Midship construction section and details of materials needed for building Benbow

frames. Having gotten a little ahead of my story, let's turn back to the keel.

This will be made from a piece of yellow pine sided 6 inches, moulded 6 inches, and 21 feet long. I favor yellow pine because it is easy to get, is very tough, will outlast oak, and does not check to excess. There will be no harm done if white oak is used in place of the pine; the slight difference in weight can be made up by using more or less inside ballast as the case may be.

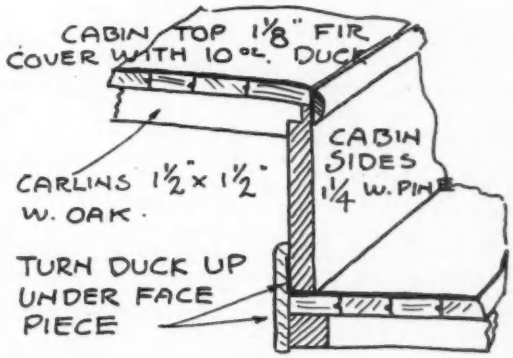
The iron keel will be cast with holes cored out for the seven keel bolts. These bolts being 1⅛ inch in diameter will require holes at least 1¼ inch diameter. There will be a squared counter sink for the heads at least 2 inches in depth, these to be filled in later with wooden plugs, or cement. There is an excellent paint made for iron called Tockolith which prevents rust and makes the iron very smooth; two or three coats of this paint should be given the iron keel, allowing at least two days drying between coats. You will notice that the two end bolts are in the center line of the keel and that the other five are staggered two inches either side. There should be a felt liner laid between the top of the iron and the wood keel and where the bolts come through a cotton gasket soaked in paint. Before the washers and bolts are made up I should run melted paraffin into each bolt hole and while this is still hot set up on the nuts. Always fit a lead gasket between the washer and the top of the wooden keel making this at least 4 inches in diameter. If the keel bolts are put in in the manner described above they will never leak; but be sure the nuts are well taken up with a long and heavy wrench.

The stem will be made from yellow pine in three pieces as shown in the construction plan. It will not be necessary to use natural crooks here; but you will need wide stuff. The stem will be sided 6 inches the same as the keel and it should be tapered to 4 inches at the top. The mouldings of the stem are shown. Through fastenings, galvanized iron bolts, will be used for joining the stem to the keel and fastening the three members of the stem together. The location and depth of the rabbet must be obtained from the full size drawing of the lines on the floor. And don't forget to bore for stopwaters where these are shown.

The deadwood will be built up from 6 inch yellow pine and tapered off aft to the stern post which should be to 2 inches. Fastenings in this part of the construction will be ⅝ inch drift bolts staggered and bored as shown. Really these drift bolts if driven into snug holes will hold just as well as nutted bolts or rivets. There are stop waters to be fitted along the rabbet in the deadwood and stern post which must not be forgotten.

The stern transom will be built up from 3 inch oak sawn to the crown of the stern which is 6 inches in 4 feet 6 inches. Thus you will have a series of crowned pieces of oak which will be fastened one to the other with 6 inch wire galvanized nails, and with four ½ inch drift bolts right through from bottom to top. Mark the location of the 6 inch nails leaving a clear place through which to bore for the drift bolts. An oak cleat must be run around the edge of the stern transom 1½ by 3 inches and fastened with galvanized iron screws. After the crowns are all fastened the surfaces both inside and out should be planed smooth.

The stern is to be fastened to the top of the stern post with ½ inch galvanized iron bolts, at least four being used.



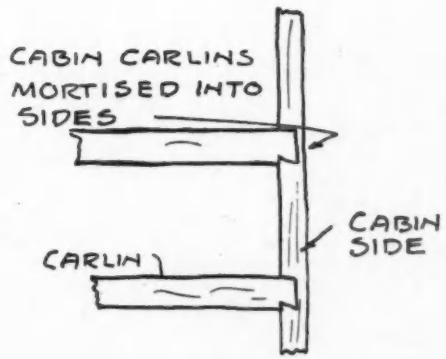


FIGURE 1

Details of deck house construction

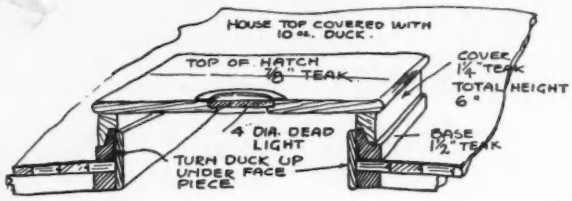

HOUSE TOP COVERED WITH 10 oz. DUCK.
TOP OF HATCH 7/8" TEAK.
COVER 1/4" TEAK
TOTAL HEIGHT 6"
4" DIA. DEAD LIGHT
BASE 1 1/2" TEAK
TURN DUCK UP UNDER FACE PIECE.

FIGURE 2

Details of the teak hatch covers

When the stern is being fastened apply a good coat of red lead paint between the joints and if the thing is well drawn together caulking or white lead will not be required. I should by all means allow the ends of the planking to run right past the stern transom without rabbeting of any kind.

The frames will be steam bent from 1¼ by 1¼ inch white oak. The heels of the frames will be let into the sides of the keel, deadwood, and stem and fastened with two long galvanized iron boat nails. Do not bevel off the frames and have these fit bare foot against the keel. The frames will be spaced at 10 inch centers. I think it is good practice to bend frames, even light ones like these, in two layers, each being ⅝ by ⅝ inch. The oak bends very easy then and after the two members have been fastened together with screws they are much stronger than solid frames.

The floor timbers will be made from 2 inch white oak and are set on the forward side of every frame. Two ⅜ inch drift bolts should be used into each floor timber making sure these are bored so that the bolts are toed into the keel and not driven in square and parallel to one another. The frames should be fastened to the floor timbers with 3 inch galvanized boat nails, two each side of the keel. In boring for driven fastening always use a bit slightly smaller in diameter than the fastening to be used; then you will have a job that will hold.

The clamp will be made from 1½ by 4 inch yellow pine. It will be difficult to get this in in a single length so make a scarph about amidships. The clamp will be fastened with galvanized rivets, two to every frame as shown in Figure 6.

The shelf will be made from 1¾ by 6 inch yellow pine and is cut to shape from the laying down plan rather than from the boat itself. This is a heavy piece of stuff and as it is bolted in will pull the deck line into a nice fair curve. There should be one ⅜ inch bolt for fastening into every frame. This is also shown in the sketch in Figure 6. The shelf will be made in three lengths and the scarphs between these should come about a third of the length of the boat apart. There will be a breast hook of 2 inch oak forward.

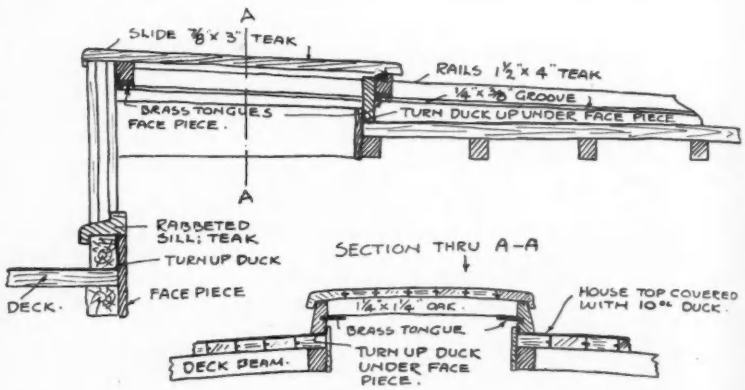


FIGURE 3.

The companion slide and rails, also of teak

The deck beams will be made from 2 by 2½ inch fir set on edge, and on the same centers as the frames. There will be several extra deck beams as shown in the drawing of the deck frame. And of course the carlings for the house sides and the ledges for the hatches. The beams should be mortised into these and then fastened with long galvanized wire nails. A 1¼ inch doubling will be needed in way of the mast and a ⅝ by 8 inch strap let in flush by way of a diagonal to prevent wringing.

The deck will be laid with 1⅛ inch tongue and groove fir about 3 inches in width. This decking will run right out past the edge of the sheer plank without a covering board; the ends must be well fastened to the sheer plank with 2½ inch galvanized finishing nails. The canvas duck with which the deck is to be covered will turn down over the sheer strake and will be covered with a ¾ by 2 inch to 2½ inch oak half oval moulding. This is shown in detail in Figure 6. The rail and rail cap are also shown in this sketch.

There should be a (*Continued on Page 64*)

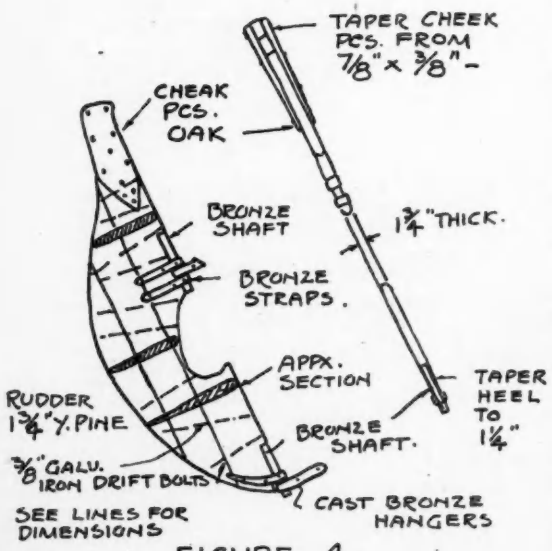


FIGURE 4

The simple style of rudder used on Benbow

SMALL MOTOR BOATS

Their Care, Construction and Equipment

A MONTHLY PRIZE CONTEST CONDUCTED BY MOTOR BOATMEN

Questions Submitted for the November Contest

CURING THE BOAT THAT STEERS BADLY

Suggestions for Remedying Faults in Some Boats Which May Help to Improve Their Qualities

Answers to the Following Question Published in July MoToR BoatinG

1. Describe a system and the necessary markers that can be used by a Club to designate the channels, etc., in the uncharted waters in their vicinity.
(Submitted by L. R. K., Philadelphia, Pa.)

2. Do you haul the mooring anchor ashore after the boat is laid up or mark it down for the winter? Explain methods.
(Submitted by W. B. M., Newburgh, N. Y.)

Explain a Method Whereby a Boat That Steers Badly May Be Made To Readily Answer Her Helm and Hold a Course

IMPROVING HARD STEERING

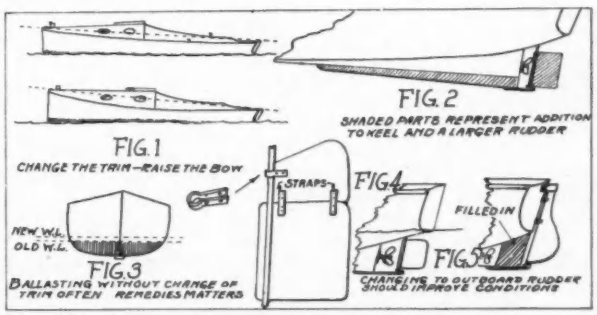
(The Prize-Winning Answer)

IT is a pleasure to steer a boat that holds a course with but little manipulation of the steering wheel and readily answers her helm. Exceptionally rare is the case of a stock boat, especially of recent years, that is not easily handled both on a course and in maneuvering. It is the older boats, often designed and built in the smaller boat shops by men not lacking in boatbuilding experience, but uninformed on the factors governing the steering qualities of a boat. The shape and construction of the hull, rudder area, shape and position, and the propeller angle and direction of rotation may be stated as the principal factors, due consideration of which will result in a boat that is not hard to steer.

Often a boat that will hold a course nicely is hard to turn. On the other hand, the shallow draft boat with little or no deadwood readily responds to the helm but is exceedingly hard to hold on a course in any but fairly smooth water. Any boat with a single right hand propeller will swing to port most readily due to the side thrust of the propeller.

Hard steering resulting from the shape of the hull presents quite a problem. A boat with a deep bow and plumb stem will be slow in turning and generally holds a course well. This is due to the center of lateral resistance being considerably forward of amidships, which requires the stern to travel a greater distance in turning, making the boat slow in responding to the rudder. This trouble is most prevalent in boats having a long deep deadwood. It is hardly practical to alter the shape of the hull, but the deadwood can often be cut away and the shaft supported by a strut. The results may be surprising, both in steering and in speed. The cutting away of the deadwood more nearly equalizes the resistance of the hull to turning.

A boat that will not hold a course may or may not be easily maneuvered. Altering the boat, except for bolting on of more keel, is seldom prac-



Suggestions by J. E. M. to assist the boat which steers badly

RULES FOR THE PRIZE CONTEST

READERS are urged to consider the above questions for the November issue, and send answers to them to the Editor, MoToR BoatinG, 57th Street at Eighth Avenue, New York, N. Y. Answers should be (a) in our hands on or before September 25, (b) about 500 words long, (c) written on one side of the paper only, (d) accompanied by the senders' names and addresses

The names will be withheld and initials used

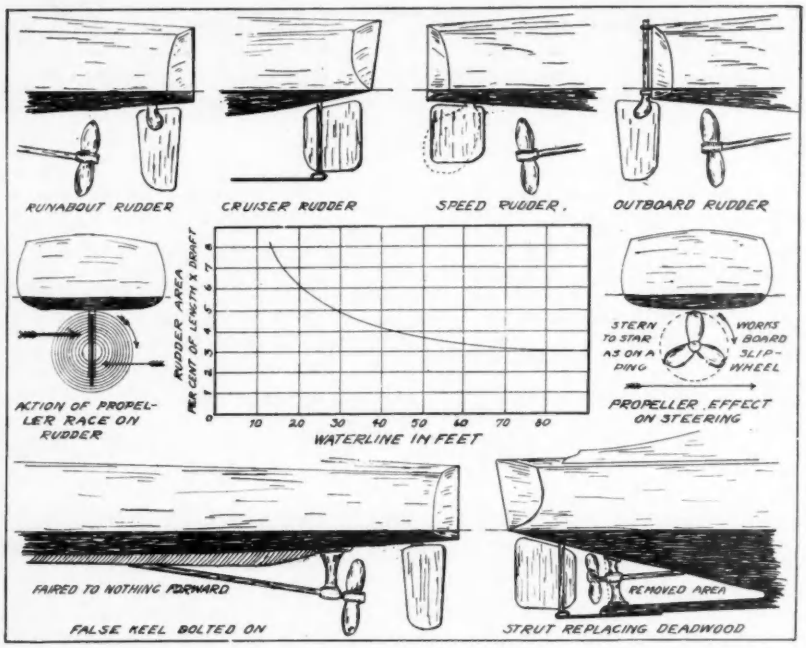
QUESTIONS for the next contest must reach us on or before September 15. The editor reserves the right to make such changes and corrections in the accepted answers as he may deem necessary.

The prizes are: For each of the best answers to the questions above, any article or articles sold by an advertiser advertising in the current issue of MoToR BoatinG of which the advertised price does not exceed $25 or a credit of $25 on any article which sells for more than that amount. There are two prizes—one for each question—but a contestant need send in an answer to only one if he does not care to answer both.

For answers we print that do not win a prize we pay space rates.

For each of the questions selected for use in the following month's contest, any article or articles sold by an advertiser advertising in this issue of MoToR BoatinG of which the advertised prices does not exceed $5, or a credit of $5 on any article which sells for more than that amount.

All details connected with the ordering of the prizes selected by the winners must be handled by us. The winners should be particular to specify from which advertisers they desire to have their prizes ordered.



W. B. M. shows several rudder types and a diagram to permit selecting a suitable size blade

tical. I remember one 30-foot cruiser in particular which required constant attention at the steering wheel to hold a course. This boat was cut in two and six feet added amidships and the old compromise stern reconstructed to a plumb transom stern. After reconstruction, the boat readily held a course and maneuvered most satisfactorily. Where a slight loss in speed is not important the addition of more keel on boats without a deadwood may help. A little experimenting will be necessary so do not make permanent fastenings until an improvement is noted.

The problem of designing a rudder for a motor boat is largely a matter of experience. The relation of the boat to the rudder and of the propeller to both the boat and rudder must be considered. Disregarding other factors, a boat will follow a straight course with the rudder in a straight fore and aft position. The flow of water past the rudder produces an increased pressure on the side toward which the rudder is turned and a decrease on the opposite side. The balance between the forces being disturbed the boat enters a curved course, the direction depending upon the side to which the rudder is turned. Were it not for the lateral plane the boat would skid the same as an automobile on a wet pavement. The farther the rudder is placed from the center of the lateral plane the greater the leverage for rapid maneuvering. To get the greatest possible leverage the rudder is placed well aft. In some few cases the installation of a deep outboard rudder will show a marked improvement in steering. The higher the speed the greater the pressure on the rudder when turned at an angle. For this reason slow boats require larger rudders in proportion to their size. A free flow of water is necessary to secure effective rudder action and excessive fullness at the stern interferes with the free flow around the rudder. If the rudder is extended below the eddies caused by the full stern the steering will be improved.

Aside from the rudder the propeller of a boat has a marked influence on her turning qualities. A single right hand screw boat without a rudder will turn to port. The bottom of the propeller works in water less disturbed by the hull and in water which is under greater pressure than the upper blades. As a result of the greater resistance to the blades at the bottom of their travel the stern of the boat tends to roll to starboard, thus swinging the bow to port. The inclination of the propeller shaft also causes a boat to run off to port, by producing the effect of a greater pitch on the descending blades. The descending blades of a right hand propeller come down on the starboard side, so that the center of the thrust is somewhat off to starboard, forcing the bow to port. This is a natural tendency in all single screw boats and is not the result of a lopsided boat as some amateurs have thought. A boat slightly lopsided in the right direction might overcome this tendency to swing to port as might placing the propeller slightly to port. However, common practice is to place propeller and rudder directly on a center line and the results are generally satisfactory.

The water from the propeller does not flow aft in straight lines, but in a whirling stream. With the rudder in this whirling propeller race, that part of the rudder above the axis receives the impact of the whirling water on the port side, causing an increased pressure there. If the rudder extends to the lower part of the propeller race a similar pressure is created on the starboard side and the action is equalized. In case of a shallow rudder which does not extend below the axis of the propeller race the pressure will tend to force the stern to starboard and increase the natural inclination of the boat to run off to port. If the rudder is deep this pressure is counteracted, the propeller race is straightened out and the boat will steer better and with less effort than with a shallow rudder. The deep rudder is better for all around use.

Steering a single screw boat when backing is rather uncertain. There is no propeller race working on the rudder, and sometimes the relation of the stern of the boat and the rudder, the propeller and hull, is such that the stern will swing in the same direction no matter which way the rudder is turned. The same conditions which cause a boat to swing off to port when going ahead prevail in opposite or reversed directions when backing, causing the boat to tend to swing to port. The swinging may continue if the rudder is put hard over to starboard, the influence of the propeller being much stronger than that of the rudder until the boat is making considerable way astern.

Regarding the shapes of rudders, there is practically no limit to the display of individuality. A form approaching the rectangular with the corners cut away in liberal curves will be suitable for all average boats. For a cruiser, the rudder *(Continued on page 120)*

DISPOSING OF ENGINE EXHAUST GAS

Practical Methods for Piping Both the Exhaust and Cooling Water Lines for Best Results

Answers to the Following Question Published in July MoToR BoatinG

Describe an effective method of piping for disposal of the exhaust gases and circulating water from the engine of a small boat.

CORRECTLY PIPED EXHAUST LINES

(The Prize-Winning Answer)

THERE are a few important points to bear in mind when piping a motor, in order to get the most efficient water circulation for cooling purposes, minimizing the possibility of clogging the jackets or overflow line, and insuring a safe as well as quiet exhaust installation which will not set up noticeable back-pressure and rob the engine of needed power.

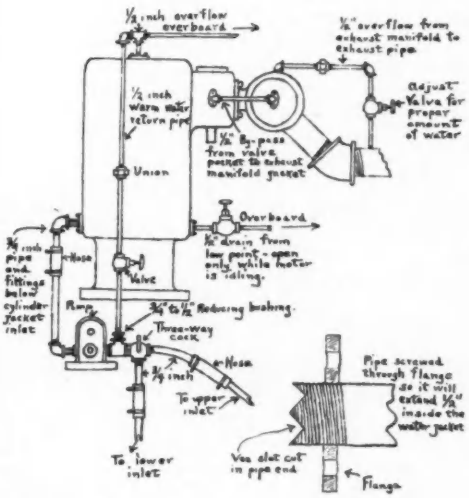
Hot water always rises, making it most important that water outlets should always be located at the highest portion of the water-jackets; otherwise, hot water will collect there, turn to steam and result in local overheating or even cracking of the jacket casting.

Sediment in the circulating water has a tendency to settle, particularly in any spots where the circulation may be poor. Some provision should be made to correct this fault, otherwise, scale and silt deposits will collect and completely clog any low spots below the line of water movement. Frequent washing out by detouring of the water flow through such pockets will aid in keeping them clean.

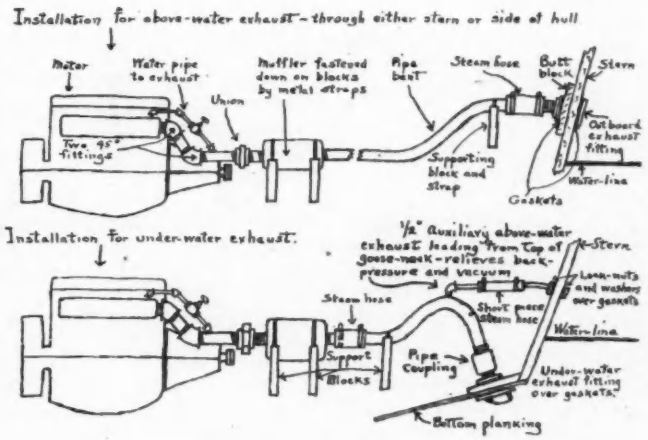
Engines piped so that the oily bilge water is pumped through the jackets will soon be found to overheat more than normal, as an oily film will adhere to the rough interior surfaces of the jacket, which in turn collects mud deposits and destroys much of the cooling efficiency, as oil and mud are poor heat conductors.

Cold water should never be piped directly into the upper part of the jackets, or around the hot exhaust valve pockets, as uneven expansion of the casting will result and cracking of the metal is the next step. The better way is to by-pass a portion of the warm overflow water back through the pump, run it from the pump to the jackets of the exhaust manifold and then to the cylinder jackets, or pipe it as shown in the illustration.

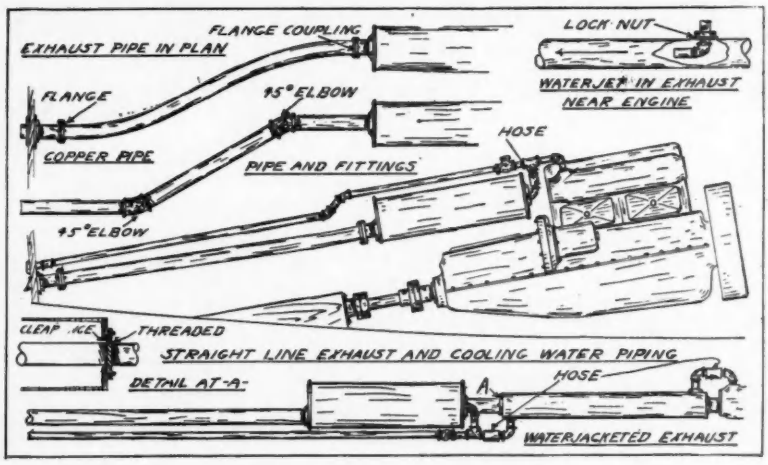
Different makes of motors use varying methods of circulating the cooling water; however, if an ample supply is pumped into the lowest portion of the jacket, if water is circulated to all pockets, if there is ample jacket space and the overflow is piped from the highest part of the jacket, efficient cooling is certain to result. Occasionally, you will run into motors where the cold water is first pumped into the exhaust manifold jacket to be slightly heated, then circulated to the exhaust pocket jacket and overflowed from the top of the jacket on the opposite side of the motor. Such an installation is certain to be found faulty, as silt and scale deposits will gradually form in the lower portion of the jackets. At any rate, where improper cooling has been found, change the circulating system to that illustrated and you can always keep your motor at the correct temperature, winter or summer.


½ inch overflow overboard
½" overflow from exhaust manifold to exhaust pipe
½ inch warm water return pipe
Adjust Valve for proper amount of water
½" By-pass from valve pocket to exhaust manifold gasket
Union
Overboard
½" drain from low point - open only while motor is idling.
Valve
Pump
¾ to ½ Reducing bushing
Three-way cock
To upper inlet
To lower inlet
Pipe screwed through flange so it will extend ½" inside the water jacket
Vee slot cut in pipe end
Flange

V. L. S. gives useful suggestions on piping the exhaust gas overboard



The illustrated system is one which had sixteen seasons' test and was found entirely satisfactory. All piping is connected by flanges to the cylinder castings; and the pipes, where they screw into the flanges, are run through about one-half an inch and V slots cut out as shown, so that scale or other deposits will not be able to clog the opening. The lower drain pipe is piped overboard from the lowest portion of the jacket and exactly opposite the intake pipe, which is also connected with the lowest portion of the jacket. After the motor has been started for a run, and while it is being idled, the valve on this lower auxiliary overflow pipe is opened, so that any sediment which has formed while the motor has been stopped will be loosened by the circulating water and carried overboard without being circulated around through the jacket. As soon as you are ready to get under way, this valve is closed and

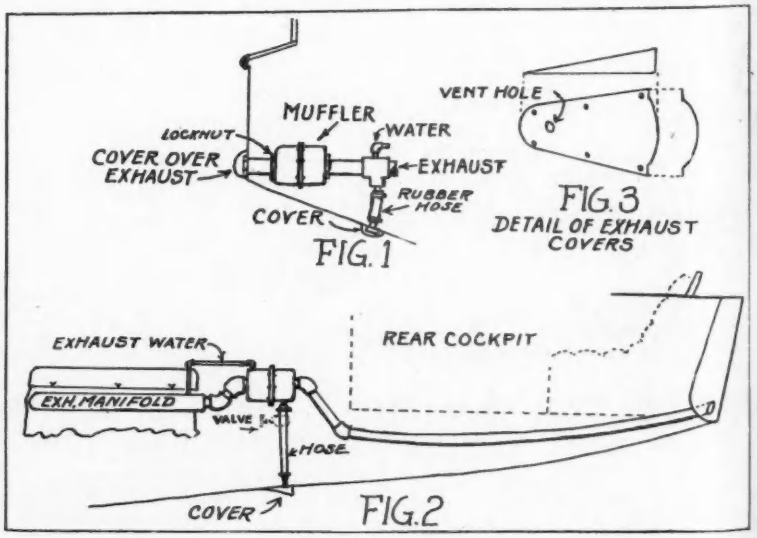


W. B. M. believes a simple straight line run of pipe is best

the water is circulated in the ordinary manner. It is always advisable to connect the piping between the pump and the water inlet through the hull with a short section of steam hose, securely fastened with hose clamps, which will take care of vibration. The small pipe running from the valve pocket jacket to the exhaust manifold causes a steady circulation of water around this portion of the jacket. The sizes of piping are those used on a motor using a three-quarter inch pump, and will give a good flow of water through the entire cooling system. The auxiliary overflow piped from the tee on top of the cylinder jacket and then to the pump should be fitted with a globe valve, so that the amount of warm water to be by-passed back through the pump can be regulated to suit the weather. The small overflow pipe from the top of the exhaust manifold jacket should be connected with a union. It should also have a globe valve installed in the line so that just the proper amount of water is fed into the exhaust line. Too much water will cause back pressure and pounding, while the proper amount will cool as well as quiet the exhaust to a pleasant purr.

Whatever type of exhaust you may use, try and get along with as few pipe fittings as possible. If it is humanly possible, bend the pipe with as long and easy a curve as possible. If, however, it is necessary to make a rather sharp bend which is of too small a radius to allow bending the pipe without kinking it, use forty-five fittings instead of elbows or tee connections. This will keep down back-pressure. Use as large pipe as possible for the exhaust line, and install the muffler or expansion chamber as close to the motor as possible. If you are using a muffler, be sure and purchase one which is equipped for water sprayed inside, otherwise it will soon rust out. Block the entire pipe line as securely as practical, so that the weight of the pipe will not be on the bolts connecting it to the cylinders. Place several layers of asbestos between the pipe and any blocking or adjacent woodwork. Iron straps may be used for this purpose, but make them heavy enough and well fastened. At a point close to the outboard connection, the exhaust line is joined to the outside stuffing box by an eight-inch piece of heavy steam hose. This will absorb all vibration, preventing the stuffing box or hull from being strained. No matter where the exhaust is piped overboard, never run all the overflow cooling water through it. In lining up the pipe line from the motor to the outboard connection, it is best to drop it gradually until it is about four inches lower than the valve pockets. At this point, the cooling water from the top of the exhaust manifold is let into the exhaust pipe. If the muffler or expansion chamber is located at this point, the cooling water is let into it. From this point the exhaust line should be as high as, and on as straight a line as possible with, the exhaust outlet through the hull. There is one very important thing to bear in mind, however, and that is, never run an exhaust line near a gasoline tank, even though it may be normally cool, as a failure of the water supply will cause the pipe to get hot, and hot pipes are poor companions for gasoline tanks.

The illustrations show various outboard fittings, each of which are applicable to certain type of installations at varying sections of boats' hulls. These can be purchased at supply houses at nominal prices. Whatever type is chosen, be sure it will be strong and waterproof, as many a good craft has sunk from leaking outboard exhaust fittings. When installing this fitting, re-inforce the hull with a block securely fastened inside, slush it well with white or red lead, and use lead soaked gaskets made from felt or heavy canvas between the flanges (*Continued on page 122*)

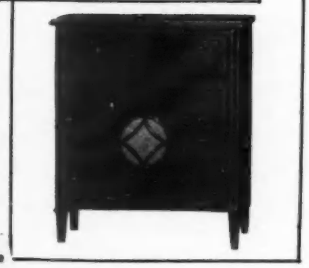


J. E. M. arranges his exhaust in the simplest possible way

NEW ADMIRALITY SUPER-10

Screen Grid Model

The Highboy



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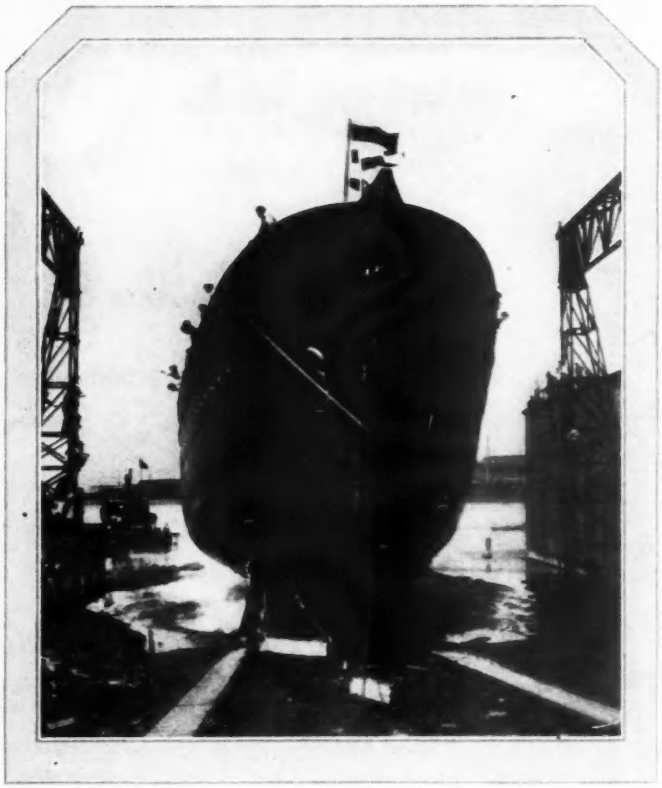


Migrant, a 225-footer designed by Gielow for Carll Tucker, takes the water at the Lawley yard. Her power is a 950 h.p. type MR-6 Bessemer Diesel

M. Rosenfeld

YARD AND SHOP

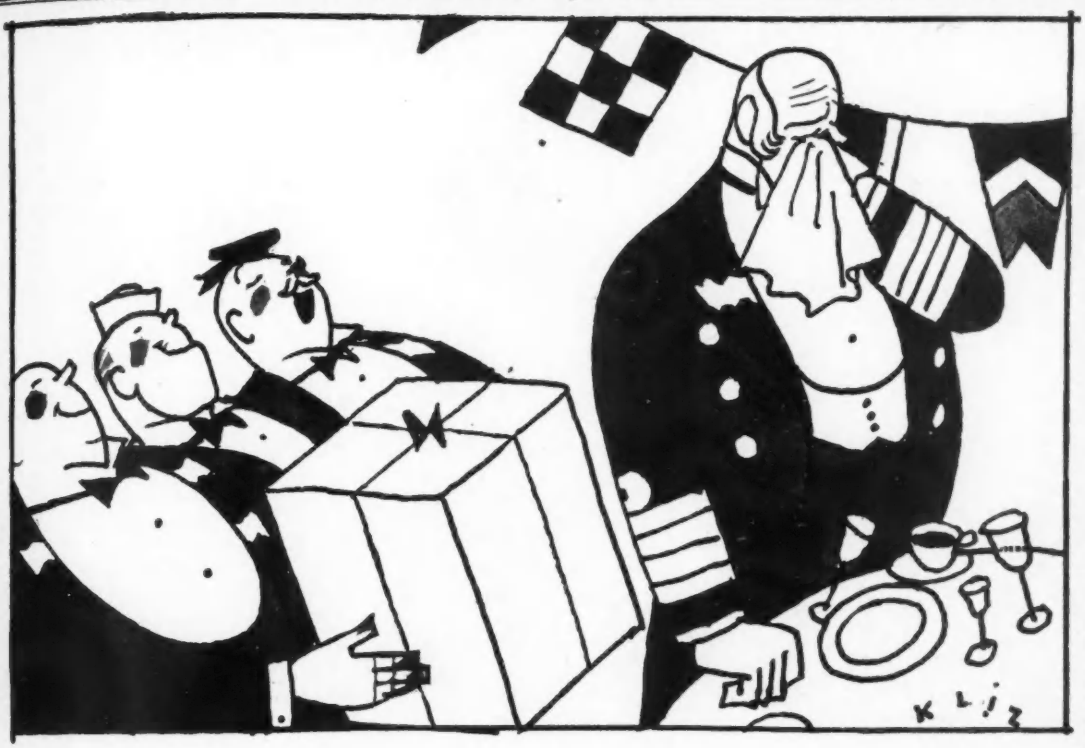
Notes of Interest to Both Owner and Manufacturer

UNUSUAL ACTIVITY IN YACHTING

DANIEL H. COX, president of the firm of Cox & Stevens, Incorporated, recently interviewed, reports that there is an unusual amount of interest shown in yachting for all types of vessels. The demand for large yachts for charter or purchase far exceeds the supply. Practically every available yacht equipped with power has either been sold or chartered during the present season. The interest in racing and sailing craft is also unusually great and the real prosperity of the country is positively reflected by the amount of money that is being spent and will be spent in the next eighteen months in new yacht construction.

Mr. Cox further states that as a result of the large amount of new yacht construction actually on hand in his office, and the new contracts that will shortly be let, Cox & Stevens, Inc. have found it advisable to increase their facilities for handling yacht work. Accordingly arrangements have been made whereby this organization, which also does considerable commercial work, will conduct its commercial designing through the firm formerly known (*Continued on page 60*)

Buzzard III is a 26-foot Hackercraft owned by Richard M. Busse of Berlin. Powered with a 200 h.p. Kermath, she won the European runabout championship at Potsdam



A Gift *to the* Outgoing Commodore

THE Old Skipper is retiring. He has spent some time (and some coin of the realm) piloting the Club fleet through regattas and cruises, dinners and vaudevilles. But the last duty of making a farewell speech looks like the thickest weather he has ever met. He plots his course through a fog of words, jury-rigs a few metaphors, and finally limps into a verbal port, flying a flag of distress and leaking a bit about the eyes.

Then is the precise moment for the Steward to lay before him the best gift of grateful clubmates—a service of Ovington Yacht China, each piece emblazoned with the Commodore's own flag and the flag of the Club he served so well. Affection and a full appreciation of his services are lashed together in this sea-going gift.

Nor need the other members envy it unduly. Should you, too, wish to cheer coming cruises, a right little, tight little service for six costs but $63, crystal to match for as little as $37. Every piece will be marked with the flags of your yacht and club, and only three weeks required before you can ship and sail with it.

"Gifts from all over the World"

OVINGTON'S

437 Fifth Avenue
New York, N. Y.

Telephone: Caledonia 8702

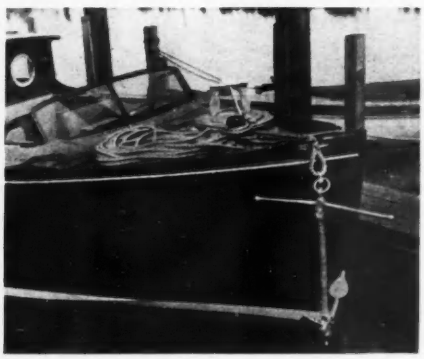
The 30-foot stock Thornycroft runabout in which Colonel R. M. Stewart and his wife crossed the North Sea

as Gibbs Brothers, Inc. who have confined their activities entirely to commercial undertakings.

This separation of the activities of Cox & Stevens, Inc. between yacht and commercial designing will make it possible for them to give their yacht clients even better attention than they have in the past.

A LONG PIECE OF ROPE

For the past several years Christ-Craft all mahogany motor boats have carried one kind of anchor line exclusively. Necessarily this must be a rope that will stand the utmost abuse, as well as be tough and light in weight. Anchors and lines on small boats aren't needed often but when they are, they must hold without any chance of failure. Naturally, money cannot buy anything too good for such an important duty.



Plymouth Manila lines are in good taste aboard the Chris-Craft 38-foot commuter

When Chris Smith and Sons chose Plymouth Manila Rope made by the Plymouth Cordage Company of Massachusetts they made a selection that was indeed fortunate. No piece of this rope has ever failed, or proved unsatisfactory in a crisis. So fine has been its performance, that every line aboard the new 38-foot commuting cruiser is Plymouth, anchor lines, dock lines and fender lines. Several hundred feet are carried on each of these fast cruisers now in this way.

It is an interesting thing to note that enough Plymouth Manila rope has been used by Chris-Craft during the past year to completely encircle Manhattan Island. If such a piece of rope could be compounded of all their shorter lengths this rope would indeed be a monument to the builders of Chris-Craft motorboats. The thousands and thousands of feet that this represents give only a slight idea of the way the building of boats up at Algonac has gone forward.

OFF TO MONTREAL

One of the yachts built for foreign waters this year was Dolphin designed and built by the Consolidated Shipbuilding Corporation, Morris Heights, New York City, for Howard Murray, of Montreal.

Dolphin is now the flagship of the Royal St. Lawrence Yacht Club, where Mr. Murray is active in club circles. She is 66 feet in length and has a beam of 12 feet 6 inches and is powered with two 170 h.p. Speedway engines, developing a speed of 22 miles per hour. The hull is of double planked cedar on oak keel and frames. The cabin trunk, deckhouses and pilot enclosure are of mahogany. Large forward and after cockpits are features of the boat for day sailing or commuting. Owner's stateroom with galley and toilet room follows the forward cockpit, with entrance leading to deckhouse. The engine room and crew's quarters with additional galley are located aft.

Dolphin adds another to the long list of commuter type boats which the Consolidated Shipbuilding Corporation has specialized in for many years. Traveling by water is becoming more popular each year and instead of boating becoming a pastime, it is arriving at an important point in the lives of men of affairs.

IMPROVED TACHOMETER DRIVE

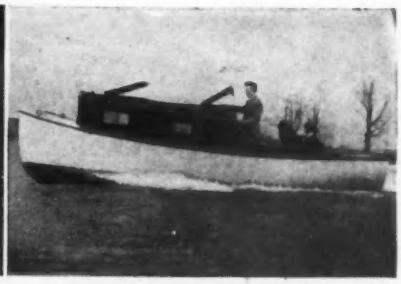
A new and improved type of tachometer drive shaft is about to be offered the aircraft, marine and industrial industries by the Consolidated Instrument Company of America, Inc.

The new shafting, a patented and exclusive product of the company, is superior in many ways and very much more durable than other types. The inner cable is constructed of 17 strands of high carbon high tensile strength music wire, in 4 layers, under special process. The casing, which is extremely light, is a bronze interlocked asbestos-packed section, reinforced with copper braided armoring. (*Continued on page 134*)

Dolphin, a Consolidated 66-footer, does 22 m.p.h. with her two 170 h.p. Speedway engines

Big Runabouts give peak performance with . . . THE QUAD.

For highest speed on fastest hulls . . . THE QUAD . . . *(Hi-Speed)*



Dependable power for comfortable cruisers . . . . THE QUAD

A consistent winner in B Class races . .THE SPEEDSTER . . *(Hi-Speed)*

Ideal power for fast yacht tenders . . . THE SPEEDSTER

For roomy, speedy family boats . . . THE SPEEDSTER

The handiest motor for dinghies . . . THE LIGHTWEIGHT

For motor tourists, sportsmen, fishermen . . . THE LIGHTWEIGHT

Ample power for average family use . . . THE LIGHTWEIGHT

FOR EVERY SERVICE
An Elto Model

INCOMPARABLE power—thrilling, velvet-smooth—for swanky runabouts, fastest racers, staunch cruisers—*that's the Quad,* greatest of outboards. Speed, stamina, performance qualities all its own — *that's the Speedster,* top value among middleweight motors. Handiness, light weight, compactness hitherto unknown—*that's the folding Lightweight,* first choice in the light motor field. Send for the Elto Catalog!

Quad
Service Model, $315
Hi-Speed Model, $345

Speedster
Service Model $165
Hi-Speed Model, $190

Lightweight
(folded)
Measures only 22"x11"x11"—
Weighs only 38 lbs.
Price $150

ELTO DIVISION
OUTBOARD MOTORS CORPORATION
Ole Evinrude, *President*
Mason Street Dept. F, Milwaukee

Super Elto **Quad** **Speedster** **Lightweight**

A5489

Pick Your Motor from this Page of Grays

GRAY "8"

The mightiest, fastest marine power plant per pound of weight and per dollar of price ever presented. Less than 60 inches in length. Bore, 3⅛"; stroke, 4½"; displacement, 322 cubic inches. Only 20" high above center of shaft. A motor of thrills that is taking the country by storm ..... Price, $1200.00

GRAY 6-90

A mighty "Six"—amazingly free from vibration. 3⅞" bore, 5" stroke, 2⅞" crankshaft. Length over all 58¾". Oil pressure fed to all bearings. Oversize reverse gear..... Price, $985.00

GRAY 6-72

A motor of wonderful smoothness, staunchness and power. Length overall 50¾"; 3⅜" bore; 4⅝" stroke; develops 72 H.P. at 3,000 R.P.M. 2⅜" crankshaft. Standard equipment on A.C.F.
Price, $745.00

GRAY 6-60

A medium size, high speed, smooth-running motor for runabout and cruiser work. Develops 30 H.P. at 1200 R.P.M. and 63 H.P. at 3000 R.P.M. Seven bearing, 2½" crankshaft, full pressure lubrication; oversize clutch; largest reverse gear of any motor in its class.
Price, $645.00

GRAY 6-40

Shortest, lightest, lowest (above center of shaft) sturdiest Six in its power class. Big crankshaft, big bearing, long pistons, full pressure lubrication, flame arrester. Develops 48 H.P. at 3000 R.P.M.
Price, $545.00

GRAY 4-50

A splendid motor famous for its brute strength and dependability. Develops 31 H.P. at 1000 R.P.M. and up to 55 H.P. at 1800 R.P.M. Length over all 50¼"; 4¼" bore; 5" stroke; 2" crankshaft. Ideal for auxiliary craft, ferry boats, fishing and work boats. Extensively used by the U. S. and foreign governments. ..... Price, $695.00

GRAY "FOUR-41"

A new, light, hi-speed motor for small fast hulls up to 22'. Built around the famous "Four-30" block, with aluminum alloy pistons, high-speed manifolding, aluminum housings and manifold. 41 h.p. at 2900 r.p.m. weight with open geared flywheel 380 lbs., starter, generator, flame arrester, drip-pan, tachometer fitting, lifting rings and complete equipment. Fits same engine bed as the "Four-30."
Price $471.00

GRAY "37"

Identical with Model "Four-41" but without clutch and reverse gear. Built-in thrush bearing. Weight 290 lbs., 30¼" long, 14" between stringers. Starter and generator and open geared flywheel. Price completely equipped, ... $299.00

GRAY 4-30

A perfectly balanced, sturdy, medium compression "Four" of unusual speed, smoothness and power. Four cycle; 3⅜" bore; 4¼" stroke; over-all length, 42"; crankshaft 1½" diameter; drilled for pressure lubrication. Develops 33 H.P. at 2400 R.P.M. for continuous operation. ..... Price, $391.00

GRAY 17-27

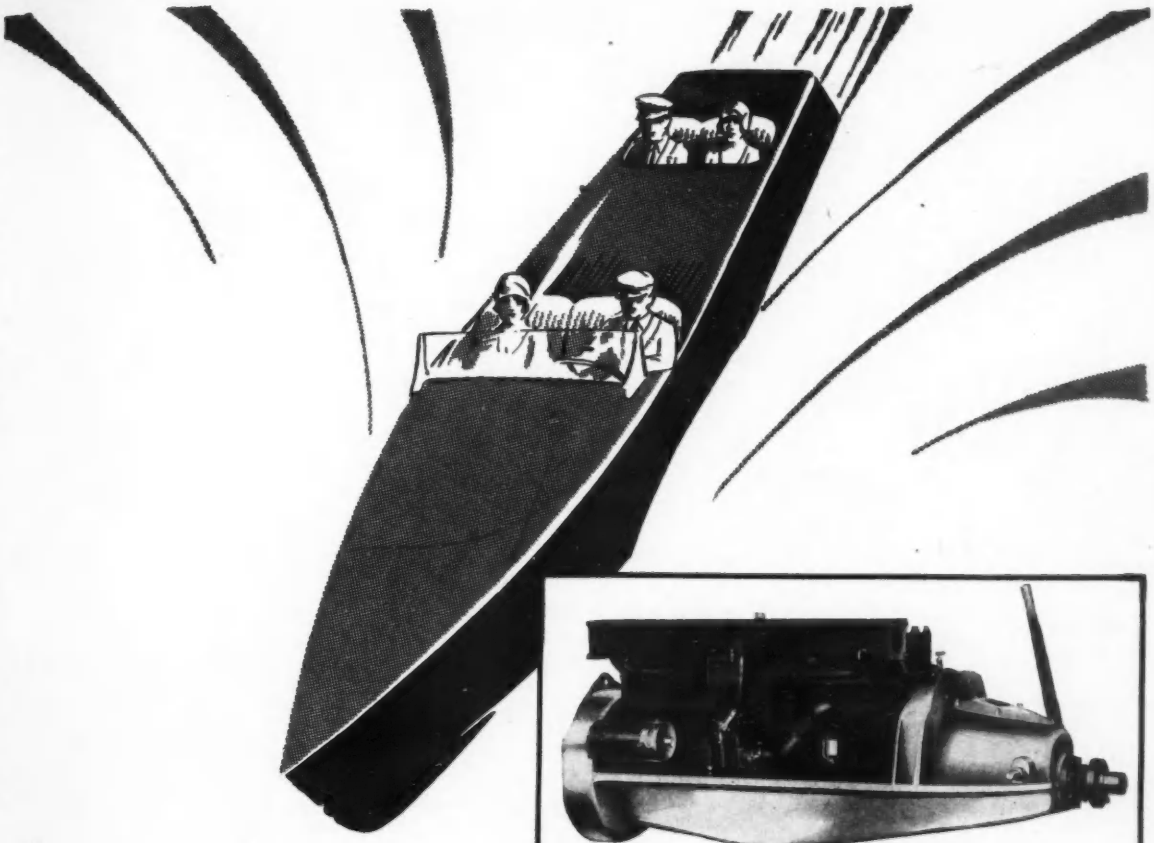
An amazing buy at $265.00. Four cylinders, 4-cycle,—a perfectly balanced, sturdy, medium compression four, complete in every phase; without clutch and reverse gear. 3⅛" bore; 4¼" stroke; weight 370 lbs. 30¼" length overall; 152 cubic inches displacement. Develops 17 H.P. at 1000 R.P.M. and 27 H.P. at 1700 R.P.M.
Price with magneto and impulse 265.00
Price with generator, starter, and timer 285.00

Gray Marine Motor Company

680 Canton Avenue — *Detroit, Michigan, U. S. A.*

GRAY MOTORS

Advertising index will be found on 3rd last page



THE GRAY "8"

Develops 129 H. P. Under 60 inches in length. Has counter balanced 5-bearing crankshaft. 3⅛" bore; 4½" stroke; 322 cubic inches displacement. Weighs 830 lbs. with aluminum base. Equipped with flame arrester, drip pan, temperature indicator and lifting rings - - - - - - - - - $1200.00

GRAY FIVER will outlast the boat

Expect Great Things from Gray

Count on ten—twelve—fifteen—perhaps twenty years or more of uninterrupted service from the Gray you buy today. That's the record achieved by Gray in boats all over the world since 1906.

Dozens of owners write in annually commenting upon the faithful performance today of Grays manufactured in 1907-08-09 and '10. The repair cost of all Gray Motors sold since 1906 is less than fifty cents per cylinder per year.

Whether you buy the Great Gray Eight, the acknowledged Marine Power Master, or one of the renowned Gray Sixes or Fours, you are buying brilliant performance — steady performance — for the years to come. "There is no wearing out to a Gray" is the compliment earned by Gray from owners everywhere.

Gray Marine Motor Company, 680 Canton Ave., Detroit, Mich.

GRAY MOTORS

BENBOW—A DEEP SEA AUXILIARY

(*Continued from page* 52)

heavy king plank made from 1¾ by 12 inch yellow pine, and this should be let into the deck beams so as to come flush with the tongue and groove decking.

The cabin sides and ends will be made from 1½ inch white pine or some other suitable wood like mahogany, and are to be fastened to the deck carlings and beams with ⅜ inch galvanized iron bolts, at least four to each side and two to each end. The corners will be fitted into a rabbeted post made from oak.

The deck will be covered with 10 oz. canvas duck laid in Jeffery's liquid glue especially made for this purpose. The duck should be in two pieces, the joint running down the center of the boat. Use copper tacks for fastening the duck, ¾ inch long will be about right and set them close together. Figure 1 shows details of the construction of the deck house, and the method of turning up the duck to keep the joint along the deck water tight.

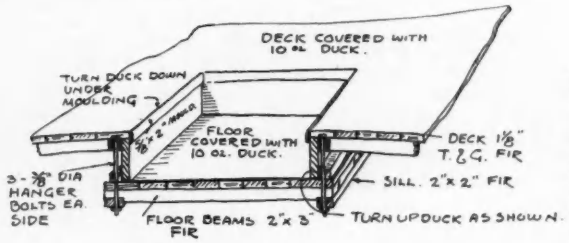

DECK COVERED WITH 10 oz. DUCK.
TURN DUCK DOWN UNDER MOULDING
FLOOR COVERED WITH 10 oz. DUCK.
DECK 1⅛" T.&G. FIR
3-⅜" DIA HANGER BOLTS EA. SIDE
SILL. 2"x 2" FIR
FLOOR BEAMS 2"x 3" FIR
TURN UP DUCK AS SHOWN

FIGURE 5

Detail of the suspended type of cockpit

Figure 2 shows details of the hatch covers which I should by all means make from teak. There is no other wood as good as this for outside joiner work.

Figure 3 shows the companion slide and rails. Use drops in place of doors which would be a bother on a sailing boat. The advantage of drops is that they can be left in thus making a very tight door in bad weather or taken out entirely and stowed below in fine weather.

Details of the rudder are shown in Figure 4 and I believe these are perfectly clear.

Figure 5 shows how to hang the cockpit to the deck and gives many other details of interest.

The cabin carlines will be made from 1½ by 1½ inch white oak and are set on 10 inch centers. The top will be planked with 1⅛ inch fir, the same as used for the deck, and then covered with canvas. On a small craft of this kind a lot of walking is done

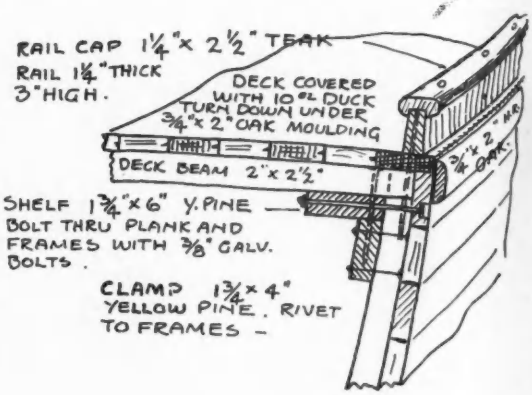

RAIL CAP 1¼"x 2½" TEAK
RAIL 1¼" THICK
3" HIGH.
DECK COVERED WITH 10 oz DUCK TURN DOWN UNDER
¾"x 2" OAK MOULDING
DECK BEAM 2"x 2½"
¾"x 2" OAK
SHELF 1¾"x 6" Y. PINE
BOLT THRU PLANK AND FRAMES WITH ⅜" GALV. BOLTS.
CLAMP 1¾"x 4" YELLOW PINE. RIVET TO FRAMES

FIGURE 6

Detail of deck, rail and clamp

on the cabin top and this is the reason for the heavy fir. You will find the hatch in the cabin top a very useful and comfortable feature. It gives air and being right over the galley part of the cabin makes a handy exit for tin cans, and other galley items that sooner or later have to be disposed of. In all small craft there should be hatches both ends and one amidships if for no other reason than for quick exit in case of fire or accident.

I should use a comparatively slow speed engine, say turning 600 to 700 r.p.m. and developing 8 to 10 h.p. for power. A power plant of this kind turns a large diameter propeller which is very effective in rough weather. A two-cylinder machine of this type is about as efficient an outfit that can be installed, is small, light and practically fool proof.

Having gone into the details of the cabin of Benbow last month approaching the end of my story perhaps I had better sign off. I know, however, that many of you will require blue prints drawn to a scale of ½ inch to the foot of this little auxiliary and as these can be had at moderate cost from the editor, I would suggest writing for them, MoToR BoatinG, 959 Eighth Avenue, New York, N. Y. A circular describing many books of boat designs is also to be had for the asking.

Perhaps it may not be amiss to mention that next month I am preparing plans for MoToR BoatinG of a 26 foot motor sailer of the raised deck type which will have a wide appeal among folks who love cruising.

GALILEE - A DOUBLE ENDED SKIFF

(*Continued from page* 49)

inverted vee each side of the boat; the sections being formed by a line drawn from the flat keel to the top of the box deadwood, thence out to the chine, and up to the deck. I must caution you who may decide to build Galilee to lay the plans down to full size from the drawings, and the table of offsets given here. Perhaps I should also add that there very likely will be slight errors in the table of offsets, and if so these errors will be so evident when the plan is being laid down that a letter to the editors should not follow. Rather, Shipmates, study the thing out a little. After all, building a boat requires a lot of ingenuity. The object of laying plans down to full size is largely to check and correct the scale lines as made by the architect. So if you find a jump of a foot or so in the sheer line, the keel, or some other place in the dimensions given in the table of offsets; compare with the drawings; and iron out the thing by the use of little plain common sense.

This little boat; and she is little, was designed for but two persons; not three. Do not change the location of anything. Do not add cabin, or standing top or anything. The plans are drawn

(*Continued on page* 128)

MODERN YACHTSMEN MAY NOW ENJOY REAL AMERICAN PLUMBING

The dark boating ages are past as far as standards of comforts are concerned. No longer need you have a mortified feeling when guests inspect the toilet facilities on your boat. Unsanitary conditions along with unsightly and ill-working toilets can now be consigned to their proper place — the bottom of the sea.

For Wilcox-Crittenden has brought real American Plumbing within the reach of the modern yachtsman. Your family and guests can now enjoy the conveniences and comforts they have come to expect at home. And the step is easy to take — especially when your boat is up for the winter. Just instruct your boat yard to install the new Sea-Clo. You have your choice of 16 beautiful color combinations, with either seat or bowl furnished in color.

Fig. 1507—Dependable Sea-Cox fitted with "Throo-the-Hull" outlet connection.

Fig. 1505 — Bronze Sea-Cox with extra heavy galvanized handle.

The satisfaction you yourself will enjoy from the simplicity, the positive action, the efficiency and freedom from trouble of the W-C Sea-Clo will many times recompense you for the expense involved. Complete descriptive material is yours for the asking. Visit your nearest dealer or write for our new Marine Hardware Specialty Booklet.

ESTABLISHED IN 1847

WILCOX, CRITTENDEN & CO. INC.

4 South Main Street

Middletown, Connecticut

WHAT THE NOVICE SHOULD KNOW

(*Continued from page* 42)

for determining our course on account of the possibility of their having shifted from their charted locations.

There are several other methods which may be used to get the same results, but they are all in a practical way variations of the same principle, that is, the comparison of a magnetic course or bearing which we know is correct by the chart with the direction as indicated by the compass.

The other error to which compasses are subject is local attraction. This consists of the deflection of the compass by influences other than those that cause variation and deviation. There are, for example, certain locations where large iron deposits might cause the compass to act in an erratic manner. Such instances are found very infrequently and information regarding them is given in Government publications, such as Coast Pilots, on charts, etc.

The matter of compass errors brings us to the subject of the different kinds of courses and the method of applying these errors in changing from one type of course to another. We have already seen that a true course is one which is determined with reference to the true or geographical north pole. A magnetic course, on the other hand, is established according to the angle it makes with the direction of the magnetic north pole while the compass course is the one indicated by the boat's compass.

Now in order to properly understand the relationship between these three courses, we must see just how each of the errors affects the compass. If the magnetic north pole were located at the geographical pole, our compasses would always point (disregarding deviation) true north, which would be, of course, along the line of the meridian of longitude on which we happened to be located, and the meridian would represent a course of true north. But variation swings our compass either right or left and the result is that our compass shows a magnetic course (once more disregarding deviation). Now the deviation enters the problem and swings our card again, perhaps further from true, or possibly in the opposite direction with a tendency to offset the effect of variation. This gives us the compass course.

So, expressing it diagrammatically, we have something like this:

True Course
Apply Variation

Magnetic Course
Apply Deviation

Compass Course

Now in applying the errors to our courses, we must visualize this scale and determine whether we are going up or down. If we find that the course we want to make good according to the chart is N E true and we want to know what compass course we must steer to accomplish this, we see that we are going down the scale from a true to a compass course. We must remember one important point—in going up the scale we apply westerly errors (in which the card is pulled to the west or left, assuming that we are standing in the middle of the compass, looking out) to the left and easterly errors to the right. Vice versa, in going down, we apply westerly errors to the right and easterly errors to the left. It is on these few facts that an understanding of the whole problem hinges.

For the sake of clearness, let us use the 360 degree compass card for our calculations, in which 0 starts us at true north. We find first that our true course of N E represents 45 degrees. Referring to the compass rose on the chart we see that we have 12 degrees *westerly variation*. We are going *down* the scale from a true to a compass course so we apply the 12 degree westerly error to the *right*. That means (remember we are standing in the center of the compass card) we add the 12 degrees to the 45 and get a *magnetic* course of 57 degrees.

Now we must apply our deviation to the magnetic course and determine the compass course. We refer to our deviation card and find on this heading a deviation, let us assume, of 6 degrees *east*. We are going *down* from a magnetic to a compass course and therefore apply our easterly error to the *left*. That means we subtract the 6 degrees from the magnetic 57 and get a compass course of 51 degrees, which is equivalent approximately in the point system to N E 1-2 E.

In other words, if we had no errors to contend with, we could steer N. E. to make good a course of N. E. Due to the westerly variation, we must steer 12 degrees to the right of this, but the easterly deviation reduces it to 6 degrees. So, the net result is that we have to steer only 6 degrees to the right or about half a point to make good the N E. true course.

Probably the question has already risen in the reader's mind —why use a true course at all? Why not lay our course on the chart according to the magnetic rose and eliminate variation entirely? Then all we have to worry about is the deviation. And the answer is that for ordinary short courses, that is the logical thing to do. But if we attempted to run long distances on a magnetic course, we would certainly get into trouble. We find, for example, that a true course of N E ½ N would take us in a straight line from Florida to Nova Scotia clear of all obstructions. At Florida, there is no variation so that at this point N E ½ N magnetic is the same as N E ½ N true. But if we held a magnetic course of N E ½ N, we would find that we were gradually curving in toward the coast, due to the fact that our compass card is being pulled more and more to the left as the westerly variation increases from 0 at Florida to about 18 degrees off the Maine coast. First we would run ashore on Cape Hatteras, or if we happened to be lucky enough to be off our course and miss Hatteras, we would certainly strike somewhere along the Massachusetts coast, west of Cape Cod. By the time we ought to be making a landfall at Nova Scotia we would be 150 miles off our course somewhere up in the forests of Maine. So it is quite important on such a run that we figure out the true course and then change our compass course at intervals to take care of the changing variation, so that we really make the true course good.

However, for ordinary day runs such as we make with small boats, the change in variation is so slight as to be negligible. In a practical way, we lay our course on the chart and compare it with the magnetic rose. Suppose we find it to be S W by W. Our experiments with deviation may have showed that on this heading we have one point easterly error, and that in order to make good a magnetic course of S W by W, we have to steer S W by the compass. That's all there is to it. Sometimes the deviation card does not show the exact course that we have plotted. If for, example, we want to run S W by W and have never checked the deviation on this course, we can approximate it from the two nearest headings. If it is one point easterly for W S W and ½ point east for S W it is safe to figure ¾ point for S W by W.

Charts are things which we cannot afford to be without. Even if all of our running is done in waters with which we are thoroughly familiar, where we know every landmark, there is always the possibility of having to run in thick weather. With a chart to show us where we are and what course to run in order to get to our destination and a reliable compass to point the way, we are handicapped very little; without them we dare not leave our anchorage.

There are various kinds of charts in use on motor boats depending on the degree of detail necessary for the kind of navigating we are doing. The charts of the coast are published by the Coast and Geodetic Survey of the Department of Commerce according to four different scales. Sailing charts made to a very small scale show long stretches of the coastline with only the more important landmarks and buoys, and the offshore soundings. They are intended only for offshore navigation between distant points along the coast or for obtaining a position as the land is approached from seaward.

General coast charts are next in size, being on a scale three times as large as the sailing charts. They cover more limited areas, being used where the boat is generally in sight of land where her position can be fixed by landmarks, etc.

The third type is the kind used most frequently on motor boats. This is the coast chart which is used for close work along shore, and for entering bays and harbors. They are made to a scale of 1 to 80,000, in which the distances on the chart represent 1/80,000 of the actual distance on the earth. On this scale, a nautical mile of 6,080 feet is very nearly equivalent to one inch.

Harbor charts are drawn to the largest scale and are intended primarily for local navigation in which the greatest amount of detail must be shown.

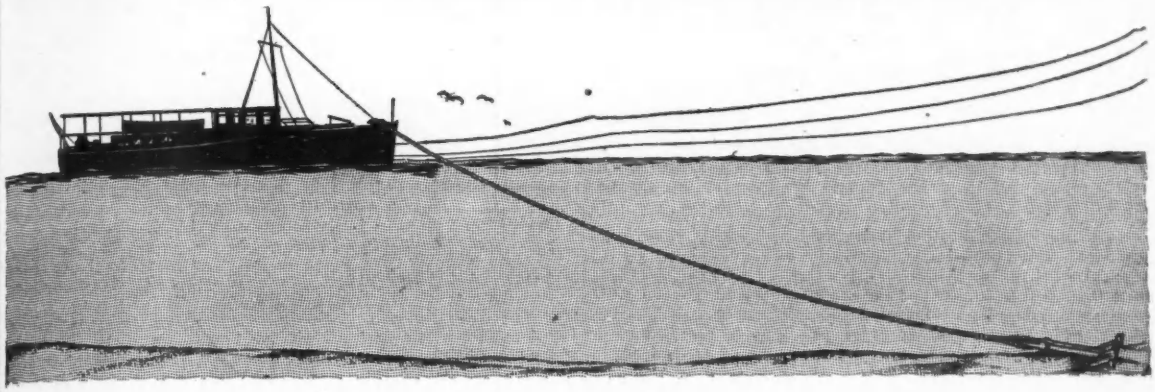
Charts of the Great Lakes are published by the War Department Corps of Engineers and have the principal courses and distances plotted on them. Depths under 21 feet are shown in tinted areas, with the deepest tint indicating the shoalest water. Beyond the 21-foot mark the depths are given in fathoms on untinted areas.

Duplication of foreign charts is taken care of by the Hydrographic Office of the Navy Department, which is charged with the publication of charts of all waters not under the jurisdiction of the United States.

Charts are very accurate reproductions to a given scale of portions of the earth's surface, showing land contours, depths of water, character of the bottom, aids and obstructions to navigation, principal landmarks, longitude meridians, parallels of latitude, and any other information that might be of assistance in navigation.

(*Continued on page* 68)

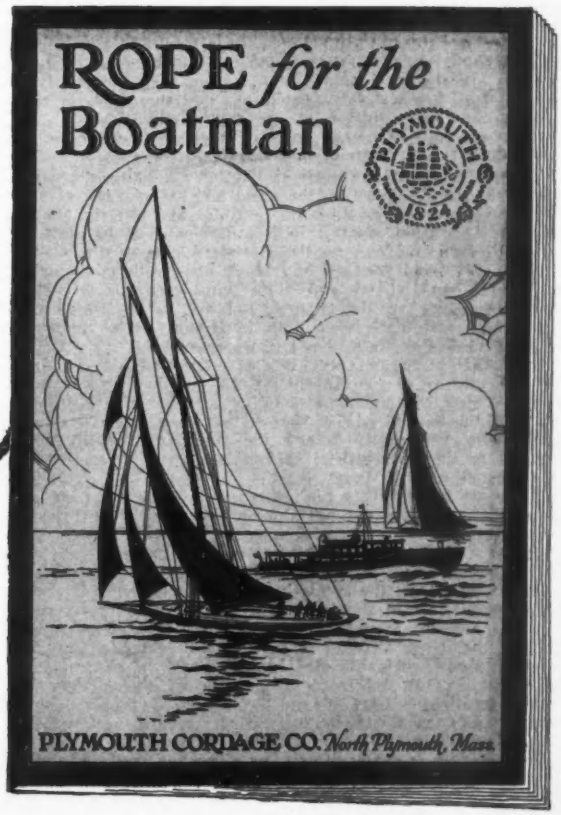
How much rope do you pay out



when anchoring over night?

AN ANCHOR holds best when the stock or shank is lying flat on the bottom, or nearly so. The anchor line should lead up to the boat in a long gradual curve with a pronounced sag at the lower end so that the pull upon the anchor is horizontal. In this position jerks on the cable do not travel its whole length and the strain on the anchor is steady, as it should be.

When anchoring over night or for longer periods, the length of rope paid out should be three to five times the depth of the water. This is why it's important, for comfort as well as safety, not only to *carry* plenty of rope but to *use* it.



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Gentlemen: Please send me a copy of your new FREE booklet, "*Rope for the Boatman.*"
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Address_____

WHAT THE NOVICE SHOULD KNOW

(*Continued from page 66*)

The charts with which we are most familiar have been developed on what is known as the Mercator projection. In order to show the curved surface of a sphere on a flat surface, the Mercator theory assumes that a cylinder is placed around the earth tangent to it at the equator. Then the meridians of longitude are opened out so that they are projected on the cylinder as straight lines. This means, of course, that the further we get away from the equator, the more all areas are enlarged and in order to preserve the proportion as much as possible, the distance between the parallels of latitude is also increased on the projection so that the areas seem to be larger as we approach the poles, not only in an east and west direction but also north and south.

When this cylinder is cut vertically at a meridian and opened out we have a flat surface, and for the amount of territory that one of our large scale coast charts covers, the distortion is so little that we can read our distances directly from a scale which is given on the chart. On the general coast charts, however, which cover great areas, we cannot use a scale due to the fact that each degree of latitude as we go north is represented by a greater distance on the chart, so distance must be computed by difference of latitude and longitude. A minute of latitude is the equivalent of one nautical mile.

The particular virtue of the Mercator chart is the fact that a vessel's course may be represented on it by a straight line instead of a curve. This makes it a simple matter to plot our courses and read them directly from the compass rose.

Soundings on a chart are sometimes given in feet and sometimes in fathoms and it is always well to look at the notation which indicates which system is used. Sometimes depths of less than 21 feet are shown in tinted areas in feet, over that in fathoms untinted, similar to the system employed in making Lake Charts.

Depths are always computed at mean low water, which is the average of all low waters. That means that there may be times at exceptionally low tides when the depths will be slightly less than that recorded. Generally contour lines are found connecting points of the same depth at intervals from the shore.

The aids to navigation such as lighthouses, lightships, buoys, and so on, are all shown on the chart and are of especial value to the navigator in locating his position and determining his courses. The usual practice in locating buoys is to place red ones with even numbers on the starboard side of the channel entering port from seaward and black ones with odd numbers on the port hand. Black and white buoys vertically striped indicate the center of the channel and are to be passed close aboard; red and black ones with horizontal stripes mark obstructions and should be given a wide berth.

Small current arrows are often given to indicate the direction and velocity of the current. Rocks are indicated by small crosses if they are under water or by asterisks if awash. The nature of the bottom is also shown, that is, whether it is mud, sand, shells, soft or hard, and the color is generally given. The use of this information in locating a boat's position will be discussed a little later.

Charts are made with a high degree of accuracy and are very dependable but there are certain cautions which must be observed in their use. For example, along rocky shores, there is always a chance that some lone rock has escaped the survey and the safest course is to give such a coast a wide berth. Then again, around inlets, the strength of the current generally causes extensive changes in the bottom, shifting sand shoals continually. As a result, channel buoys must be moved from time to time, so that their location is rarely up to date on the chart. In other places, their intended locations may be shown on the chart, but ice or storms may have moved them from their correct positions. Care should be exercised in the use of lighted buoys as the light may be temporarily extinguished. The visible range of lights on charts is computed on the basis that the observer's eye is fifteen feet above sea level and it must be remembered that the visibility is considerably greater from the masthead than it would be on deck. Sometimes the glare of a light can be seen beyond the normal range of the light beam.

Catalogs may be obtained which show on outline maps the areas covered by all charts so that anyone may very easily get the numbers of those which he will need for his cruising. From time to time sheets are also published by which old charts may be brought up to date. The number of corrections necessary on the average chart for a number of years is not necessarily very great, but they might prove to be of considerable importance.

Now in laying out our courses on the chart the procedure is to draw in pencil a straight line or a combination of straight lines which will take us in the most direct route from the point of departure to our destination, giving due consideration to the fact that we must have at all times a sufficient depth of water, utilizing wherever possible buoys and other navigational aids, and keeping well clear of charted dangers and obstructions. If it is necessary to alter our course at some point, it should be done near some buoy or other definite landmark, so that we can be certain that our turning point will actually be at the point we have plotted.

Having decided on the course we propose to follow, the next problem is to determine what course we steer by our compass to make good the directions represented by our pencil lines on the chart. This is where our course protractor comes in. The protractor consists of a celluloid compass rose with the compass points designated around its circumference. To the center of the rose is attached a celluloid arm, arranged so that it pivots freely. A hair line is cut down the center of the arm, passing exactly through the center of the rose.

The first step is to place the center of the rose exactly over the point which represents our position on the chart. Then, the rose is held in this position, while the arm is swung until the hair line cuts the center of one of the compass roses given on the chart. Then it will be noticed that the hair line also passes across a certain point designated on the inner (magnetic) circle of compass points. Supposing, for example, that this point should be N W, we know that if we turn our protractor rose so that the hair line cuts it also at N W, then both roses will be in agreement as to relative directions. So we hold the arm firmly with the hair line passing through our position and the center point of the chart rose until the two are in agreement. Then the protractor rose is held and the arm is swung so that the hair line passes along our charted course. Now we can read, at the point where the line crosses the rose, the *magnetic* course to be steered. But it does not follow that this will be the course we steer by compass. Referring to our deviation table, if we find that there is no deviation on this course, then it is all right to steer it by our compass without further correction. But if the card shows an easterly error we must steer that much to the left of the magnetic course, or if the error is westerly we steer to the right by the amount of the deviation (remembering our previous discussion as to the proper method of applying the error in changing from a magnetic to a compass course.)

Variation does not enter into our problem here because our protractor was oriented with reference to the magnetic rose on the chart which already differs from the true by the amount of the variation. As we mentioned before, there is no occasion to use the true course and concern ourselves with variation unless we are laying a course which will take us over an extremely great distance.

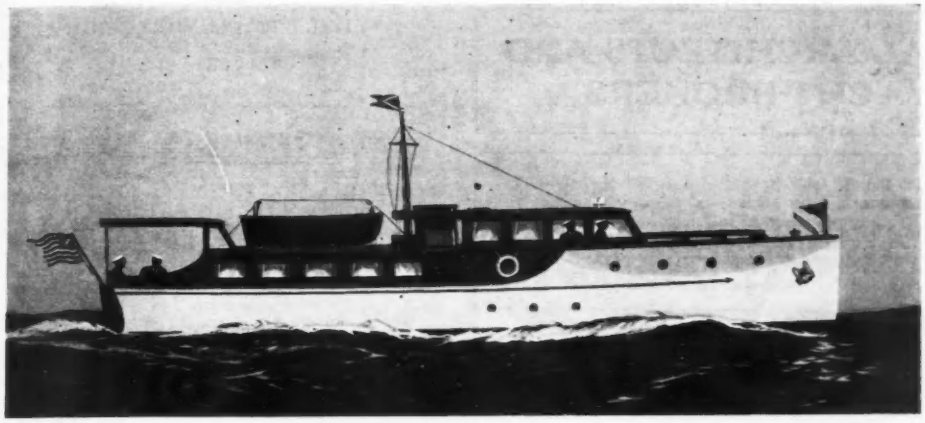
Naturally, the results we get from these calculations show us the direction to steer, assuming that there is no tide or wind to set us off our course. These conditions complicate matters and the judgment and experience of the navigator is called upon to gauge the exact amount of allowance that he must make to offset these factors. In a previous article we spoke of the desirability of becoming acquainted with the effects which tides and winds of varying strength will have on the boat, and it is in problems of this sort that such information will be of particular value.

It is possible to figure graphically by drawing a diagram on the chart an exact course which will properly allow for current when the direction and velocity of that current can be determined, but that is a more advanced problem. An excellent discussion of this and similar problems can be found in the June and July issues of MoToR BoatinG.

Some navigators prefer to use what is known as a parallel rule instead of a protractor in plotting courses. This device consists of two rulers hinged together at two points in such a manner that they can be opened out to various distances and at the same time always keep their parallel relationship. One of the rules can be laid along the plotted course and by stepping the two rules alternately ahead, the angle of the course can be transferred to a point where it crosses the center of the compass rose, and the magnetic course may be read where the magnetic rose is intersected.

Practically everyone is aware of the extensive use made of soundings in the navigation of unfamiliar waters by vessels of all sizes. On small boats, the depths are generally found by means of a lead and line which consists of a lead shaped somewhat like a sash weight and weighing upwards of five pounds, attached to a length of twenty-five fathoms or more of braided cotton line. Marks are put along the line at intervals from the lead which enable the leadsman to call the depth of water

(*Continued on page 70*)



Announcing the

50 CHALLENGER

the newest addition to the

HUMPHREYS SEA-CRUISER SQUADRON—CUSTOM-BUILT DIESEL OR GASOLINE POWERED

The wide success of the famous Humphreys 45 Navigator brought with it a considerable demand for a 50-foot Sea-Cruiser of this type—heavier in construction and offering greater speed.

The new 50 Challenger provides many unusual features—in roominess of accommodation, in seaworthiness, in completeness of equipment and furnishings, and in adaptability to either Diesel or Gas Power.

She has a roomy forecastle forward, amply accommodating two men. This is followed by a large galley running the full width of the ship. The large enclosed deck house, finished with sofa berths, is so arranged that the helmsman can be either completely shut off or not, as the owner wishes.

Deck house connects directly with the owner's and guests' quarters — three single staterooms, each with bureau and closet; and a large, double stateroom with bathroom and built-in-tub. This stateroom connects directly with the cockpit. The finish of the 50 Challenger is the finest obtainable . . . and the quality, sea-worthiness and dependable performance of all Humphreys craft are recognized everywhere.

The 50 Challenger, while primarily designed for the installation of Diesel power (either single or twin screw) is also adapted to the installation of gasoline engines for those owners requiring greater speed than is yet practicable with Diesel engines. Cruising speed of 14-15 m.p.h. with Diesel power—or of 17-18 m.p.h. with Gas Power can be obtained at moderate cost.

Prices, Specifications and Equipment List of all Humphreys Sea-Cruisers—from 40 to 70 feet—mailed promptly on request.

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BOATING ACTIVITIES IN SWEDEN

Motor boating in the Malmo Consular District of Sweden has never attained great popularity, owing to the absence of suitable rivers, bays and island archipelagoes, although the demand in the northern sections has increased to the extent that a motor boat industry has been established at Limhamn, a suburb of Malmo. This firm plans building 30 motor boats in 1929 and three times that number in 1930. Some difficulty has been met in obtaining sufficient experienced workmen to keep up with orders and ordinary building carpenters had to be employed Three types of boats are being manufactured which use outboard motors and one model for an inboard marine engine.

One very practical use to which motor boats could be put by residents of Malmo is for quick transportation between that city and Copenhagen. The ferry boats which now perform this service take an hour and a half for the journey, which, in favorable weather, can be done in half an hour with a fast motor boat. Airplane service is also available between Malmo and Copenhagen and the usual flying period is only ten minutes, but the airport of Copenhagen is about three-quarters of an hour distant from the heart of the city by taxicab and the aeroplane fare alone 15 crowns ($4.02), as against 2.50 crowns ($0.67) by ferry. There is a relatively large wealthy class in Malmo which spends much time in Copenhagen and it seems likely that if the practical features of owning their own means of speedy sea transportation are properly demonstrated, a good business might be done among them.

There has been some local talk of the advantages of establishing a kind of motor boat taxi service between Malmo and Copenhagen, but thus far it has not advanced beyond the stage of a mere proposal.

What the Novice Should Know

(*Continued from page 68*)

as soon as it touches bottom. The marks are generally arranged as follows: 2 fathoms from the lead, 2 strips of leather; 3 fathoms, 3 strips of leather; 5 fathoms, a white rag; 7 fathoms, a red rag; 10 fathoms, a leather with a hole in it; 13 fathoms, same as 3; 15 fathoms same as 5; 17 fathoms, same as 7; 20 fathoms, 2 knots; 25 fathoms, 1 knot; 30 fathoms, 3 knots; 35 fathoms, 1 knot; 40 fathoms, 4 knots, and so on.

The bottom of the lead is hollowed out and before a cast is made, some tallow or grease is placed in it. This is known as arming the lead, the idea being that when the lead strikes the bottom, some of the particles stick to the grease, so that a sample is obtained which can be compared with the characteristic designated on the chart. The value of such information at times is apparent. Very often a definite knowledge of the depth and nature of the bottom is sufficient to confirm the navigator's impression as to exactly where he is located, especially when the sounding is used in conjunction with others taken at regular intervals while the boat is running over a given course.

In heaving the load, the boat's speed is reduced as much as is practicable and the leadsman stands well forward with the lead line coiled either on deck or in his hand. The cast should be made forward so that the line is standing straight down when the lead strikes bottom.

The log is another valuable instrument to have aboard. This is a device made in various forms which registers the speed of the boat. The old-fashioned chip log was simply a small piece of wood so weighted that it would stand vertically in the water. A length of line was attached to this and at a distance of about 20 fathoms from the ship a mark was put. When the chip was cast from the stern of the boat, it would remain practically in the same location while the line was paid out from a reel. The 20-fathom mark would indicate when the ship was clear of the wake of the boat and from that point the line would be marked at intervals of 47 feet 3 inches with small pieces of line thrust between the strands. A sand glass was provided with the log which was inverted when the first marker passed the rail. Then the number of marks which passed out over the rail in the time that it took for the glass to empty, was a measure of the number of nautical miles which the boat was making through the water per hour.

The patent log is a more up-to-date instrument which accomplishes the same result in a different manner. A recording dial is attached to the boat and a length of line is fastened to this with a spiral propeller-like device at its end. The line is of such length that this rotator is clear of the wake. The revolutions of the rotator as it is pulled through the water, twist the line and transmit the revolutions to the dial which records in nautical miles per hour.

With both of these instruments, the difficulty is that the record we get is the speed of the boat through the water and allowances have to be made for the strength of the current and the effect of the wind. We do, however, get a sufficiently accurate estimate of the boat's speed to enable us to figure the length of time it will take us to run certain courses. This is especially helpful when we want to know in advance where we can expect to pick up a buoy when running at night or in a fog. A pair of dividers is useful in measuring the distance on the chart. They can be set to a unit of a mile according to the scale of the chart and then it is a simple matter to step off the distance along the course. Knowing this and the approximate speed of the boat from the log, we have the means of making some fairly accurate calculations.

NEW AUTOMATIC WRENCH.

Every tool-user will welcome the new-principle net wrench that adjusts itself automatically without the necessity of slow thumb-screw adjusting which has been developed by the Speednut Wrench Corporation. Guessing as to the proper size wrench has been eliminated. Twenty-three distinctive features are incorporated in this wrench that make it actually a whole kit of wrenches in one. It ratchets with surprising ease on either the tightening or loosening operation. The harder it is pulled the tighter it grips. It cannot slip and works in close quarters by 1/12 turn grip. Constructed from high grade forged, tempered steel, heat treated, this different wrench is indeed built for real work. It is fool-proof and fully guaranteed. Subjected to exceptionally severe tests in the hands of a number of the largest companies throughout the United States, this wrench has already won for itself an enviable place among the most efficient tools. Made in various sizes for practically all requirements. Complete information, including the direct sales policy of the manufacturer may be secured by addressing the Speednut Wrench Corporation, State-Lake Building, Chicago, Ill.

Advertising index will be found on 3rd last page

Montauk's famous promenade . . . 1,600 feet of broad, firm boardwalk . . . bisecting wide, white beaches . . . a lane of laughter by day, a boulevard of beauty by night.

Surf Bathe . . . 125 miles nearer the Gulf Stream!

MONTAUK BEACH'S surf invigorates—it doesn't bite or chill.

For the smart summer colony that gathers here has captured the greatest bathing site . . . Long Island's slender tip . . . 125 miles out in the Atlantic Ocean . . . 125 miles nearer the Gulf Stream.

And so the iridescent surf that falls for miles on a smooth, firm beach, silky as face powder to the touch, is warmer . . . more beautiful in color . . . purer . . . unsullied by oil-film . . . and free of debris.

What an afternoon climax it offers to 18 or 36 holes of golf on Montauk's heatherclad moors . . . or a brisk canter over 30 miles of winding, undulating bridle paths . . . or a battle of the century at sea with tuna or broadbill swordfish . . . or a few fast chukkers of polo . . . or four tingling sets of tennis in Montauk's world's largest glass-enclosed tennis auditorium . . . or a stroll on its broad 1,600 feet of boardwalk . . . or a cruise out of its million-dollar yacht basin.

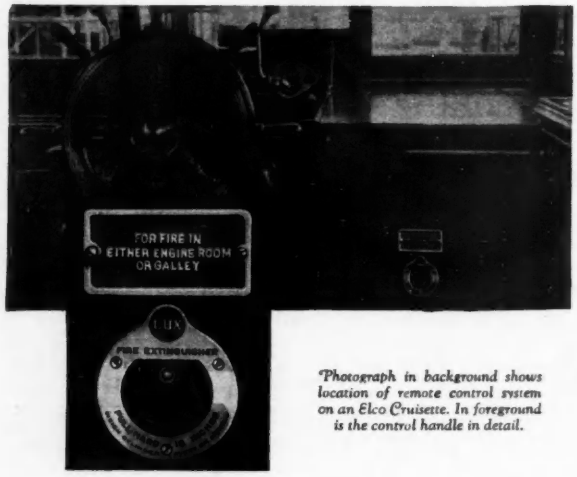
And after the "dip" . . . the unsurpassed cuisine of the beautiful Montauk Manor . . . a few dances . . . music . . . and bridge. That is life! Life daily at charming Montauk Beach. Where it's 10 degrees cooler in simmering summer months. And, consequently, the ideal region for a summer home—or a vacation. Make reservations now at Montauk Manor or write for full descriptive literature. Easily accessible by rail, motor or ferry.

Montauk Beach Development Corporation, Montauk, Long Island. New York Office, 450 East 52nd Street, Telephone Plaza 0783.

montauk beach

ON LONG ISLAND'S SLENDER TIP

54 LUX Systems Have Been Installed on New Elco Cruisers in 1929



Photograph in background shows location of remote control system on an Elco Cruisette. In foreground is the control handle in detail.

A QUICK PULL OF THE HANDLE...

So far this year 54 Elco Cruisers have been equipped with LUX Fire Extinguishing Systems. And Elco is only one of the leading builders that install LUX to protect their boats against the fire menace.

There is a LUX System for every type of boat —from the single cylinder, local control installation for the small motor boat to the multi-cylinder unit, with remote control, for large cruisers and yachts.

In all cases LUX brings instant death to fire, whether a minor blaze in the bilge or a raging oil fire in the engine room or galley.

A quick pull of the handle in the control box and a blanketing cloud of LUX gas smothers every trace of fire in a few seconds.

A request will bring you full information about this indispensable protector of the lives of your family and friends.

For further information simply clip the bottom of this advertisement and mail with your letterhead.

Walter Kidde & Company, Inc.
140 Cedar Street
New York

LUX

Fire Extinguishing System

LABELED BY UNDERWRITERS' LABORATORIES

Why the Hydroplane Planes

(*Continued from page* 18)

speed. If he has a boat that makes eight miles an hour with two horsepower and he reads of an eight horsepower motor making thirty two miles we can hardly blame him for assuming that if he puts eight horsepower on his boat he too will get 32 miles an hour—whereas he is unusually lucky if with this exchange he achieves ten miles an hour. We generally explain this by attributing to each hull a normal or latent speed beyond which any increase is obtained only by quite disproportionate increases in power—but that doesn't really explain anything, it merely states the condition. We summarize the situation by saying that our power is used to dig a hole and to drive the boat out of the hole thus created—and that comes nearer the truth. The simple fact is that our added power is merely used to move more water but instead of moving it in the desired direction is merely moving it up and down. In other words we dig too much water out from under the front of the boat, the boat settles that much further in the water and we have a bigger hole to refill. The situation is further aggravated by the fact that the bow of the boat raises the surface water in the form of a wave—which makes the hole that much deeper, and at the same time increases the amount of water to be pushed or lifted by our power.

As far as we have gone we have been dealing with water as fluid, but you will remember that we commented on the possibility of considering it as a solid. Water under pressure or under a sudden sharp impact certainly has the characteristics of a solid. If therefore we could get some of this solid water under our boat the effect would be much the same as when our car came out of the sand on to the concrete. We would have something to ride on, something to push against instead of something we had to move. How can we put pressure on this stream of water that we are pulling under our boat?

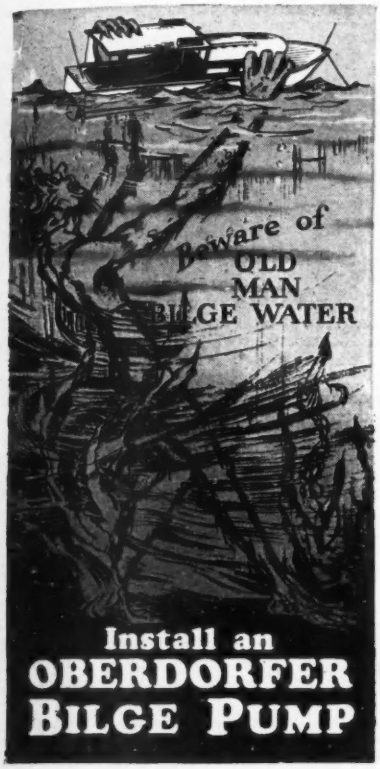
The v-bottom boat was designed to accomplish this purpose. Instead of throwing the water out, a tunnel on each side of the keel forward tended to draw the water in under the hull. The weight of the motor, forward pushed the water down, causing it to come up under pressure under the after part of the hull, which was purposely made flat to ride on top of this wave. The up and down motion which in our displacement boats had represented lost motion had been put to work. The admission of air under the hull amidships—that is between the down thrust and the up thrust—was found to add still greater efficiency in that for reasons we need not consider it served to pile the planing wave up to a sharper peak and thus reduced the amount of boat actually in contact with the water. This is your step boat or hydroplane. There is considerable difference in the methods of dividing the load between the forward compression surface and the after or planing surface but the general idea when outboards first reached sufficient power to raise the question of speed was that the load had to be divided between these two supporting planes and that the air provided by the openings at the step removed a suction amidships or as the phrase had it, reduced the amount of wetted surface.

Our first outboard speed hulls were faithful reproductions of the prevailing inboard styles—a weakness we have not yet entirely overcome. It took the better part of a year to prove—and then only to the initiated few—that whatever the virtue of the v-bottom bow in an inboard it served no useful purpose on an outboard—for the simple reason that there was not weight enough forward to bring the vee into the water. We finally found that by cutting the bow off altogether we could produce a faster boat than if we left the the bow on. Here obviously was a boat that was planing perfectly—in spite of the fact that it had no compression surface forward. How then did we create our planing wave? First by dragging the stern so that it tended to create a wave, and then as the speed increased by forcing a column of air against the face of this wave so that it lifted the stern of the boat and released the pressure there. This same column of air created a down draft on the under side of the forward part of the boat, similar to the lift on the upper side of the wing of an airplane, which in turn helped to keep the boat in proper planing balance.

Herein lies the real secret of outboard development. Planing is largely a matter of proper balance—so that the boat at speed will ride on top of the planing wave—and in inboard design balance is largely achieved through variations in the distribution of weight. Increased power means increased strength to carry the power and eventually leads to considerable weight. A Gold Cup boat may not weigh less than 2,000 lbs. and the motor installation adds another 1,000 lbs. An outboard motor cannot be placed very far from the after end of the hull. The motor may and frequently does weigh more than the boat. In short there is no weight with which to balance the motor—and if there were it would be a handicap. We have a substitute for weight and what is more important a substitute that we can increase or decrease at

(*Continued on page* 74)

Advertising index will be found on 3rd last page



Install an OBERDORFER BILGE PUMP

Don't let "Old Man Bilge Water" get hold of your boat

"Old Man Bilge Water" can never threaten your boat if it is equipped with an Oberdorfer Automatic Electric Bilge Pump. Imagine the pleasure of always having your boat pumped out. Imagine the peace of mind you will have when you know that this faithful robot will guard your bilges night and day, in fair weather or foul, at sea or at anchor.

Oberdorfer Automatic Bilge Pumps are made throughout of non-corrosive metals. They are easy to install, and operate on your regular lighting or ignition storage batteries.

IMPROVED MODEL "B"

The Improved Model "B" is available in 6 and 12 volt units; the "Master" in 6, 12 and 32 volt units.

Patents Applied For

"MASTER"

Lurking around beneath the surface, the specter of "Old Man Bilge Water" is a constant threat to the safety of your boat and the passengers it carries. He is ever on the alert to sneak into your boat through a sprung seam, faulty stuffing box, stove-in plank or a dozen other places. When he finds boats equipped with Oberdorfer Bilge Pumps he knows he is licked and looks elsewhere for hapless victims.

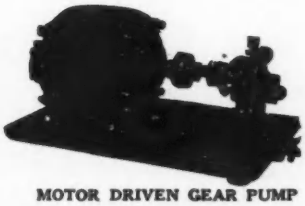
Oberdorfer Pumps

HAND BILGE PUMP

Everyone familiar with the Oberdorfer Hand Bilge Pump—(and most boatmen are)—knows it as a faithful, efficient friend. Made throughout of non-corrosive metals and unaffected by salt water. Detachable handle.

Oberdorfer Motor Driven Gear Pumps and Centrifugal Pumps are widely used as bilge pumps, fire pumps, and for galley and lavatory water supply systems.

Oberdorfer Bronze Gear Circulating Pumps are available in standard types, forms and sizes for any marine motor or converted automobile motor.



MOTOR DRIVEN GEAR PUMP

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M. L. OBERDORFER BRASS CO.
2228 Thompson Road
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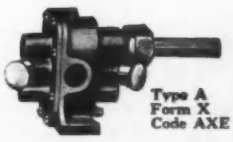

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For Sale... this luxurious Cruiser

HERE is an opportunity for some discerning yachtsman to enjoy *immediately* the thrill of owning a swift, roomy and beautiful craft.

The "NIORD" illustrated above, is a 66-foot Consolidated Day Cruiser, Two 170 h. p. Consolidated built Speedway Engines provide quiet, effortless power and a speed of approximately 22 miles an hour.

This splendid boat is magnificently equipped throughout. Has a spacious enclosed deck house, salon, comfortable sleeping quarters and toilet facilities. There is also a good sized galley and abundant locker space both forward and aft.

Do not fail to write or wire for further particulars. Arrangement may be made for inspection and running demonstration.

CONSOLIDATED
SHIPBUILDING CORPORATION
Morris Heights New York

Sedgwick 7800

CONSOLIDATED CRUISERS

Why the Hydroplane Planes

(*Continued from page 72*)

need in a way that is quite impossible if we were using weight for the same purpose. That substitute is suction. Our speed creates it, the shape of our hull controls it.

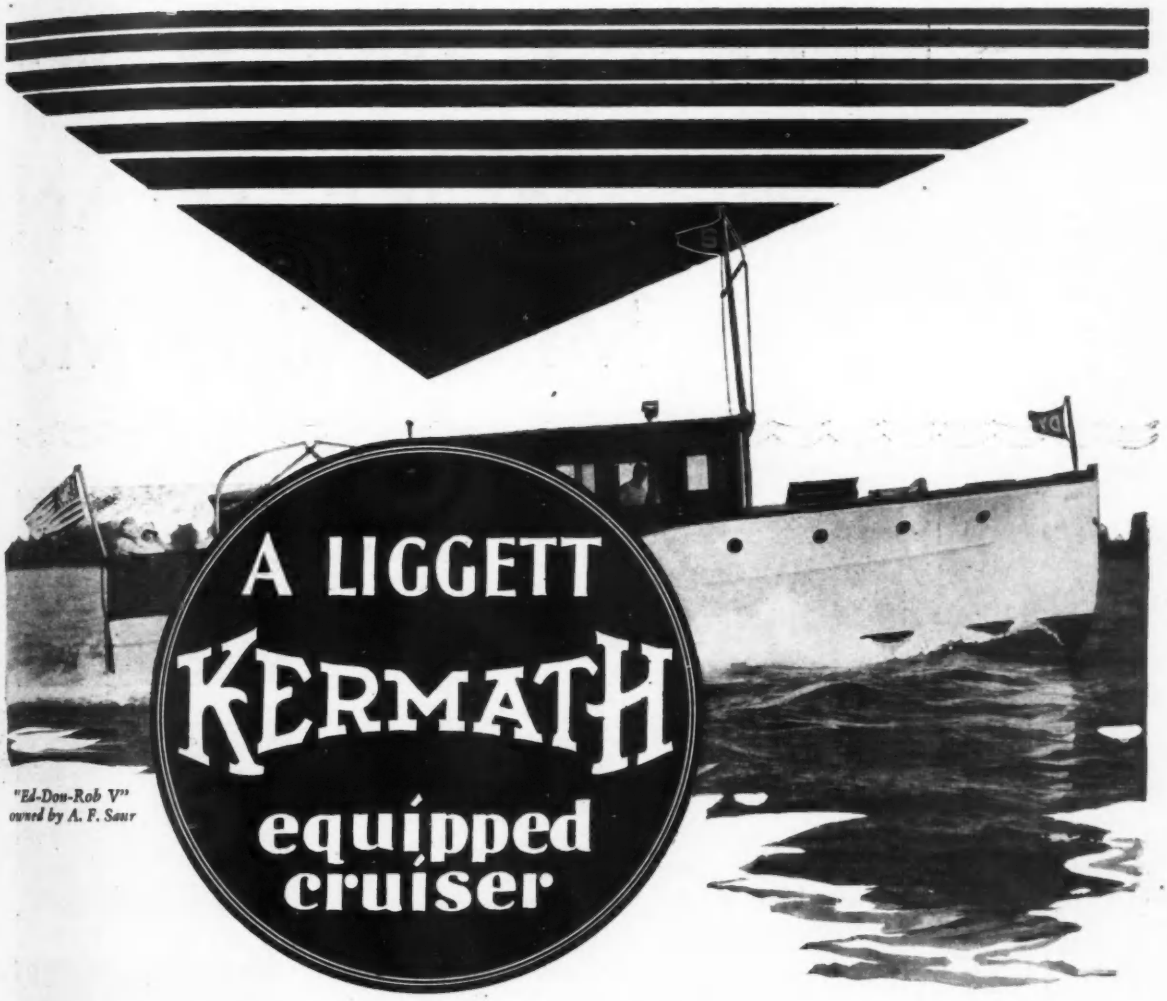
It is a popular fallacy that an outboard step plane carries the load on both the forward and after planes. Witness the fact that the better a boat planes the closer to the transom the driver is obliged to sit. The forward plane acts as a riding surface when the boat comes out of planing position but when the boat is planing the step so far from carrying the load is used as an additional suction. It dips into the water just enough to create an additional drag without which the boat would topple over backwards. This dragging action would disturb our planing for the fact that the air rushing into the vents that create the pressure that we depend upon to create our wave.

A racing hull is designed not only for speed but for speed with a given load. A boat for general service on the other hand has step erases the disturbance and is in fact the main source of the wave and the hard water we need for our propeller were it not to take care of a variable load under varying conditions. In our speed hulls we provide various surfaces to carry the boat when it is not at speed but there is a sharp break between the behavior of the boat at slow speed and at full speed—which may involve riding for a brief interval in a decidedly uncomfortable position. In a service boat on the other hand the boat must adapt itself to the whole speed scale without any serious difference in the way the boat rides. A service boat in other words must be a good planing boat at speed and a good displacement boat with a load or at reduced speed, which is only another way of saying that the bottom must be so shaped as to accommodate itself to the changing stream that passes under the hull. Roughly speaking the broad flat after surface furnishes the speed while the shape forward determines the riding quality, and this is more easily understood when we remember that it is the bow that goes into the wave when we strike rough water. If as in all v-bottom types the bow presents a flat surface to the oncoming wave we can be sure that however seaworthy the boat may be it will be hard riding, whereas a well rounded bow will go deeper into the wave but will check gradually and without slap. Such a bow properly faired off will by its very shape create something not unlike a planing wave when the boat is heavily laden and will therefore give us good paning laction with considerabe load, whereas the conventional v-bottom boat, like its big inboard sister, is dependent on a fairly critical balance without which it loses its ability to plane—and when not planing it makes a rather poor displacement boat.

Most of us assume that v-bottom hull must be fast because we associate it with fast inboard models. We say it looks fast. Under proper conditions it is fast—but this very fact limits the range over which it gives good performance. But lest these remarks be misunderstood let me hasten to explain that mere roundness forward is not enough to assure proper results; it is the flow of the lines from fore to aft that matters. In all these matters however we have one unfailing test. We have already seen that our power is being used to move a volume of water from one end of the boat to the other. We have found that that stream can be put to work. If therefore we were moving any appreciable volume of water that is not working we are wasting power. You may or may not think it pretty to have a boat throw a wide spray on each side—that is a matter of your idea of beauty—but you can be absolutely certain that every bit of water that is lifted is consuming power and is absolute evidence of decreased efficiency.

One other factor is essential. We have so far confined ourselves to straight propulsion. What happens when we turn? Going back to our old friend with the log and assuming he is sitting on the middle of the log we would regard the middle as a sort of pivot and the matter of turning would be a matter of taking water from the front of one side and putting it at the back of the other side—but this action would also require taking water from the back of the otherside over to the front of the first side—so that what actually happsn is that we move half our displacement from the front to the back on one side whmile we move the other half from the back to the front. This is the method we still use in turning a rowboat. If however we move our weight back so that our pivot comes at the after end then instead of taking water from in front of the boat we take it from the side toward which we want to go (and pass it back of the boat) and the boat flows to that side. If however our pivot is a short distance forward of the stern then instead of removing water from in front of the side toward which we want to swing we can remove water from the after section of the opposite side and accomplish the same purpose with much less effort. In the one case we move the figurative hole from which we take water, in the other we

(*Continued on page* 80)



A LIGGETT KERMATH equipped cruiser

"Ed-Dou-Rob V" owned by A. F. Saur

Here is the famous bridge deck double cabin Liggett Cruiser powered with the equally famous Kermath 150.

These cruisers which develop a speed of 20 miles an hour are enjoying an ever growing popularity in many of the best known American watering places.

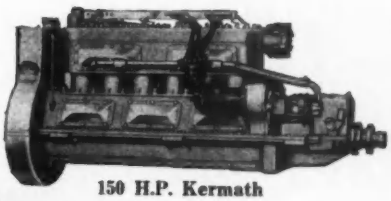
Over 80% of the leading boat builders standardize on Kermath power plants because of their rugged construction, modern simple compact design, low operating cost and enduring dependability.

The judgment of such authorities should indicate much to you.

There is a brand new Kermath catalog just off the press which contains a wealth of information about Kermath engines. Here is a valuable text book which should be in the hands of every yachtsman. The full Kermath line is fully described. Write for your copy today.

3 to 200 H.P.
$135 to $2300

KERMATH MANUFACTURING COMPANY
5879 Commonwealth Ave., Detroit, Mich.
90 King St. W., Toronto, Ontario
***New York Show Rooms*—5th Ave. and 15th St.**

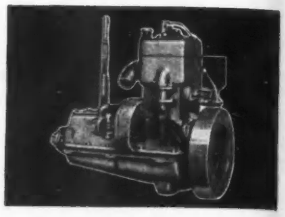


150 H.P. Kermath

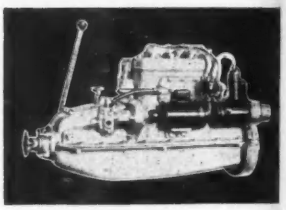
"A Kermath Always Runs"

HERE'S SOMETHING MORE THAN MERE CLAIMS

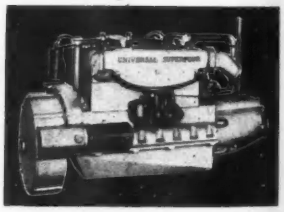
UNIVERSAL SINGLE
6-8 H. P.



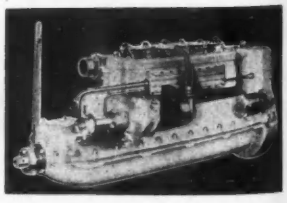
UNIVERSAL FLEXIFOUR
10-15 H. P.



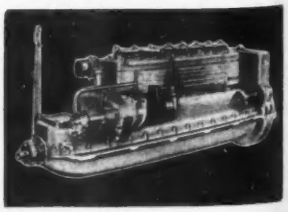
UNIVERSAL SUPER-FOUR
GLR 50 H. P.
GLH 45 H. P.
GLS 35 H. P.



UNIVERSAL SIX
75 AND 85 H. P.



UNIVERSAL EIGHT
110 H. P.



Advertising index will be found on 3rd last page

Check these Universal features for yourself. Compare them with those of any other motor—you'll find some of them, perhaps, but on *no* other motor will you find them all.

Ricardo Cylinder Head

•

Extra studding prevents blowing

•

Alloy iron used for cylinder block and head

•

Thompson Silichrome Valves

•

Oil Cooler

•

Built-in Hand Sump Pump

•

Spline Tail Shaft

•

Tachometer Connection

•

Drip Bowl

•

Flame Arrester

•

Full Pressure Lubrication

•

Fuel Pump

•

Gas Strainer

•

Motometer Connection

•

Cylinder Block cast separate from crank case and crank case cast out of aluminum

•

Split Fly-Wheel Housing

•

Aluminum Base

•

Oversize Reverse Gear

•

Handsome Instrument Panel

•

Water Jacket Inspection Plate

•

Distributing Plate to evenly distribute cooling water to cylinder block

•

Light weight Lynite rods and pistons

•

Automatic Chain Tightener

•

Removable Tappet Guides

•

Removable Valve Stem Guides

•

Doweled Bearing Caps

•

Dynamically Balanced Crank Shaft

•

Dynamically Balanced Flywheel

•

Weather-proof Ignition Wire

•

Rigid inspection of parts plus partial disassembly for final inspection after running under full load

•

Dynamometer tested for accurate horse power reading

Just check this evidence of Universal Superiority

It takes three things to make worthwhile marine motors; first, they must be designed to do a marine engine's job; second, they must be built with a thoroughgoing care that means freedom from trouble through long years of service; and third, they must have those features of construction and equipment which assure not only quality performance, but convenience of operation as well.

It is these three qualities which distinguish Universal Motors—which explain Universal's popularity. Ask for our complete descriptive literature on the Universal Single—Flexifour—Super-four—Six—Eight.

UNIVERSAL MOTOR CO. Dept. MBG-9 Oshkosh, Wis.

New York Showroom: 44 Wagren Street
London Showroom: 22 George Street, Hanover Square West

Universal MOTOR CO.

NOT CONNECTED WITH ANY OTHER FIRM USING THE NAME "UNIVERSAL"

MARINE MOTORS

Announcing---MATTHEWS

10 POPULAR MODELS

"38" Matthews

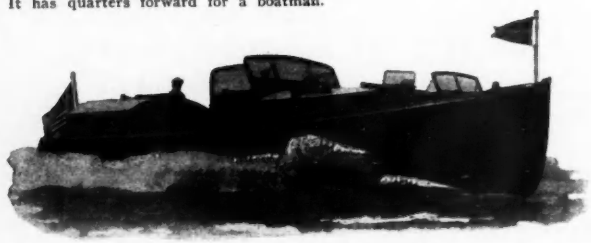
Available in the Famous "38"

Matthews again opens new opportunities to you for the cruiser for your own particular requirements. Now, even more than before, there is a Matthews Stock Cruiser for every cruising requirement.

The 1930 series of Matthews Stock Cruisers presents what is probably the most complete array of stock models ever expected by the cruiser interested public. For 1930 there is an entirely new Matthews Stock Cruiser—the Double-Cabin Sport Cruiser—providing most unusual accommodations and otherwise a play-boat arrangement. This new boat with individual berths for six people is extraordinarily smart, and while all Matthews Stock Cruisers are unusually fast cruisers with only their standard power equipment, the Matthew's Sport Cruiser, in either the "38" or "46" hull, is faster and is capable of engine installations for speeds over thirty miles per hour.

For 1930 the various models of the "Famous Family" Matthews "38" will be duplicated in the big "46" hull—10 popular and distinctly different models with 24 stock arrangements. This complete duplication of models in either a "38" or a "46" hull affords many the opportunity of a Matthews Stock Cruiser who heretofore may

The new Matthews "38" Double-Cabin Sport Cruiser—the infant of the "Famous Family" Matthews "38." An entirely new and extraordinary play boat. With most unusual accommodations and smartness. This model in a "46" hull is a delightfully de luxe boat in every way. It has quarters forward for a boatman.



The Matthews "38" Day Cruiser (Enclosed Bridge)—a remarkably comfortable cruising boat and always a complete surprise to all who investigate her. This popular model fits most particular purposes as no other boat will. In the new series the deck house or enclosure is finished in natural mahogany and varnished.

The Matthews "38" Single-Cabin Stock Cruiser—the most popular and best known member of the "Famous Family" Matthews "38." The same model in the Matthews '46" is luxuriously furnished and contains separate quarters for two boatmen.

Advertising index will be found on 3rd last page

STOCK CRUISERS FOR 1930

AND 24 ARRANGEMENTS

and the Big Matthews "46" Hulls

MATTHEWS "46"

have withheld interest because of size. There are many details of enrichment in the various "46" models not to be found in the "38"s, but each unit is uniquely itself and uniquely planned to accommodate, to a rare nicety, the demands for a boat of its type.

For 1930 Matthews Stock Cruisers are, more than ever, beautiful in detail of finish and equipment. Interior decoration, furniture, and equipment show the care and thoughtfulness given them for this new series. New equipment—new furnishings—new detail—are prevalent throughout.

Deliveries of the 1930 series start September First, and displays of the new models will be available, for your inspection, in the show rooms of our various distributors throughout the country by October First to October Fifteenth. You are cordially invited to inspect the 1930 series of Matthews Stock Cruisers at your first convenience, and make critical comparison as you will—or write for illustrated, descriptive literature.

Pictured on these pages are the various Matthews Stock Cruisers —all now available, in the 1930 series, in either the "38" or the "46" hull. There are 24 stock arrangements afforded you within these various models. Truly, "There's a Matthews Stock Cruiser for Every Cruising Requirement."

THE MATTHEWS COMPANY **Port Clinton, Ohio**

Designers and Builders of Boats of Distinction—Since 1890

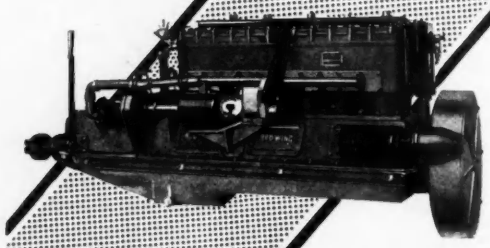
SALES AND SERVICE: Belle Isle Boat & Engine Co., 8777 E. Jefferson Ave., Detroit, Mich.—Bruns, Kimball & Co., 5th Ave. and 15th St., New York City.—Wm. V. Masson, 421 Munsey Bldg., Baltimore, Md.—Walter H. Moreton Corp., 1045 Commonwealth Ave., Boston.—Lake Erie Yacht Brokerage Corp., 1365 West 117th St., Cleveland.—Mississippi Valley Yacht Sales, Times Bldg., Alton, Ill.—R. Sealy, Commerce Bldg., Galveston, Texas.—Robert V. Staats, Inc., 3000 Wilshire Blvd., Los Angeles.—J. A. Scarlett, 436 East 2nd St., Cincinnati, Ohio.

The Matthews "38" Double-Cabin (Enclosed Bridge) Stock Cruiser—whether open or enclosed or whether "38" or "46" this model is unsurpassed for family use or for the owner who cares to cruise with friends and guests along.

The Matthew "46" Sport Cruiser—whether "38" or "46" the Single-Cabin Sport Cruiser here pictured has no peer in smartness or versatility. As a place for a bridge party or for a fishing or play craft the Matthews Sport Cruiser stands apart.

Red Wing Thorobred
THE MOTOR WITH POWER TO SPARE

LITTLE CHIEF
BB
6
MARINE MOTOR



Magneto side BB Six, medium duty type with gray iron base. Seven bearing crank shaft, built-in reverse, oil filter, tachometer drive, and two unit twelve-volt electric system.

Elegant 40′ x 11′ day cruiser on Lake Minnetonka, owned by P. A. Brooks of Minneapolis. Powered with a Little Chief BB Six 75-100 H.P. Red Wing. Speed 13 miles per hour.

Among other things, a Red Wing Little Chief BB Six has adaptability. Whether installed in a day cruiser or a standardized 60 "footer," this marvelous marine motor can be depended upon to perform faultlessly under all conditions. Owners everywhere (and they are legion) agree that the Little Chief Thorobred is a real masterpiece in high speed motor design.

EIGHTEEN THOROBRED SIZES 4 TO 150 H.P.

4 Cylinders			
D 10-14 H.P.	2¾″ x 4″	BB6 MD 50-80 H.P.	4½″ x 6″
AA 18-24 H.P.	3¾″ x 4¾″	BB6 HS 80-110 H.P.	4½″ x 6″
F 28-36 H.P.	4 1/16″ x 5″	BB Sp. 6 MD 75-100 H.P.	5″ x 6″
B 22-40 H.P.	4½″ x 5″	BB Sp. 6 HS 100-150 H.P.	5″ x 6″
BB4 40-50 H.P.	4½″ x 6″	Big Chief Six 85-110 H.P.	5″ x 7″
BB4 HS 45-70 H.P.	4½″ x 6″	Big Chief Special Six 110-150 H.P.	5¾″ x 7″
Big Chief 50-60 H.P.	5″ x 7″	1 and 2 Cylinders	
Big Chief Special 75-90 H.P.	5¾″ x 7″	K 4-5 H.P.	3¾″ x 4¾″
6 Cylinders		KK 7-8 H.P.	3¾″ x 4¾
Warrior 30-50 H.P.	3¾″ x 5″		
Arrow 40-80 H.P.	3¾″ x 4½″		

RED WING MOTOR CO.
RED WING, MINN., U. S. A.

W. H. MORETON CORP. - - 1043 Commonwealth Ave., Boston
VERRIER, EDDY CO. - - - 291 East 12th St., New York City
W. E. GOCHENAUR MFG. CO. - - - 631 Arch St., Philadelphia
F. B. EISENBRANDT - - Foot of Light St., Baltimore, Md.

Why the Hydroplane Planes

(*Continued from page 74*)

move the hole into which we are sending the water.

Our outboard motors steer with the propeller. The very act of steering in itself changes the direction of the suction created by the propeller. Our ideal planing surface must therefore allow us to build a planing wave diagonal to our regular forward riding wave on which to ride the turns. Failing this we must have some other method of turning. Some racing boats are built with the idea of letting them come off the regular planing wave, pivoting on the froward step and then rebuilding the wave. On a service boat the steering pivot must come well aft at speed but must be somewhat further—not too much further—forward as the speed decreases.

Summing up what you buy when you buy a boat is not the picture that the interior presents to you but the shape that the exterior presents to the water.

England's New Challenger

(*Continued from page 32*)

injury to the power plants, should the boat strike any floating drift.

Of special interest is the power plant which consists of three Napier Lion engines of twelve cylinders each which are arranged in three banks of four each. They develop approximately 1000 h. p. each so that the boat has a total of about 3000 h. p. and an anticipated speed of 105 m. p. h. The arrangement of the exhaust lines is such that the two after wing engines exhaust through the transom with water cooled exhaust pipes. The forward engine could not be handled in this way on account of space limitations so that this one exhausts vertifically into the air through short exhaust stacks. Each engine is arranged as an entirely independent unit, having its own fuel, oil and water supply with independent fuel and oil tanks for it. An elaborate hook up of the three carbureters and the ignition on each engine is provided so that they can all be handled simultaneously. Thy are designed to turn up to about 3300 revolutions per minute and the propellers will turn about 5000 through step up gear boxes. No starting batteries are carried although a separate single cylinder engine, also fitted with its own set of tanks, is employed to start the main engines.

The steering will be handled by means of two rudders which are of hand forged steel and chromium plated to reduce water resistance. All under water parts have been plated in this way to increase the speed possibilities. The rudders work together through suitable gears and are controlled from the single wheel in the center of the cockpit. Three seats have been provided which will be occupied by Miss Carstairs in the center at the wheel, with the mechanic on her right with all controls before him.

Illustrations of the boat which are available show it to be a very carefully designed and business like product and the challenge of this boat should not be lightly considered. Every effort possible has been made to produce not only a very fast but a thoroughly reliable craft which will no doubt give a good account of herself. Fuel capacity has been provided for about one hour's running at full speed and a tank capacity of 150 gallons is provided on both sides of the boat. The mechanic will have his hands full when the boat is running at full speed since the instrument board carries fifteen different instruments all of which must be watched and observed while the boat is running. The motors in Estelle IV have been designed only for fresh water service and on this account the boat did not come through the port of New York but was shipped directly to Canada where it will be tested. A large staff of mechanics and boat builders accompanied the boat to this side so that there will be no question about the facilities available in order to tune the boat up to its finest point and then maintain it in this condition.

RUNABOUT FOR DUKE OF WESTMINSTER

A smart 26-foot runabout has recently been built by Messrs. S. E. Saunders, Ltd., of East Cowes, England, for the Duke of Westminster, who is well known as an enthusiastic British yachtsman and devotee of motor boating. The power plant of this ten passenger runabout is a 150 h. p. Kermath valve-in-head engine which provides a speed of 36 to 38 miles per hour. The boat is specially designed with a high freeboard to permit of travel in rough seas without discomfort to the occupants. It is understood that the Duke is extremely pleased with the design of the boat and very keen about its riding qualities and speed.

Advertising index will be found on 3rd last page

Elco Boating

PUBLISHED MONTH TO MONTH BY THE ELCO WORKS, BAYONNE, N. J. . . . SEPTEMBER, 1929.

Smaller Elco boats in storage at Bayonne

ELCO WINTER STORAGE SERVICE

BEFORE many more weeks have passed the first of the fleet will be returning to Bayonne for their winter hibernation. Dozens of Elco owners make it a regular practice to send or bring their boats to the Elco Plant for storage. For the information of those who are not familiar with Elco Storage Service and for the guidance of those who cannot avail themselves of it, we wish to explain just what this service is and what care is taken of the boat.

Space reservations are now being made, either for inside or outside storage. When the time comes for lay-up, Elco is prepared to furnish a competent man to bring the boat from her mooring to Bayonne, if the owner cannot arrange this himself conveniently. A telephone call giving the location of the boat, the lay-up date, and the name of the person having the keys is sufficient to relieve the owner from all further responsibility.

Upon arrival in our basin the boat is moored with Elco lines and fenders. Experienced men make careful surveys of every part of boat and power plant in order to determine what work will be necessary to put her in commission again in the Spring. She is tested under way and then hauled out and the under water parts examined.

The equipment is next removed from the boat, inventoried and stored in lockers. A copy of this inventory is sent the owner as well as being on file at the Plant. The hull and engine are drained of water; the storage battery removed to the electrical shop where it is regularly charged during the winter; the plumbing is drained and laid up; the gas tank drained and the engine protected against corrosion. Polished brass is coated with special oil to protect it. When all the necessary notes, "Water out, gas out," etc., are chalked on the rudder the boat is moved to her winter space and carefully blocked up to insure that she will not be strained.

If stored outside, the boat is covered with a heavy waterproof tarpaulin so arranged that there is a free circulation of air under it. All lockers and floor boards are opened up for ventilation so that there may be no chance of dry rot setting in. If the boat is stored in the huge "Building 16", she is protected with a muslin dust cover against dirt and dust.

Soon after lay-up a complete report is made to the owner as to the boat's condition, together with recommendations as to necessary reconditioning. Prices on a flat rate basis are quoted on practically all of this work.

When the sun starts north again in the spring, the reconditioning work is carried out as ordered, and then, as part of the storage service, the boat is launched, plumbing and battery placed in commission and the equipment placed on board. Brass is cleaned as are all other parts of the boat not taken care of in the reconditioning work.

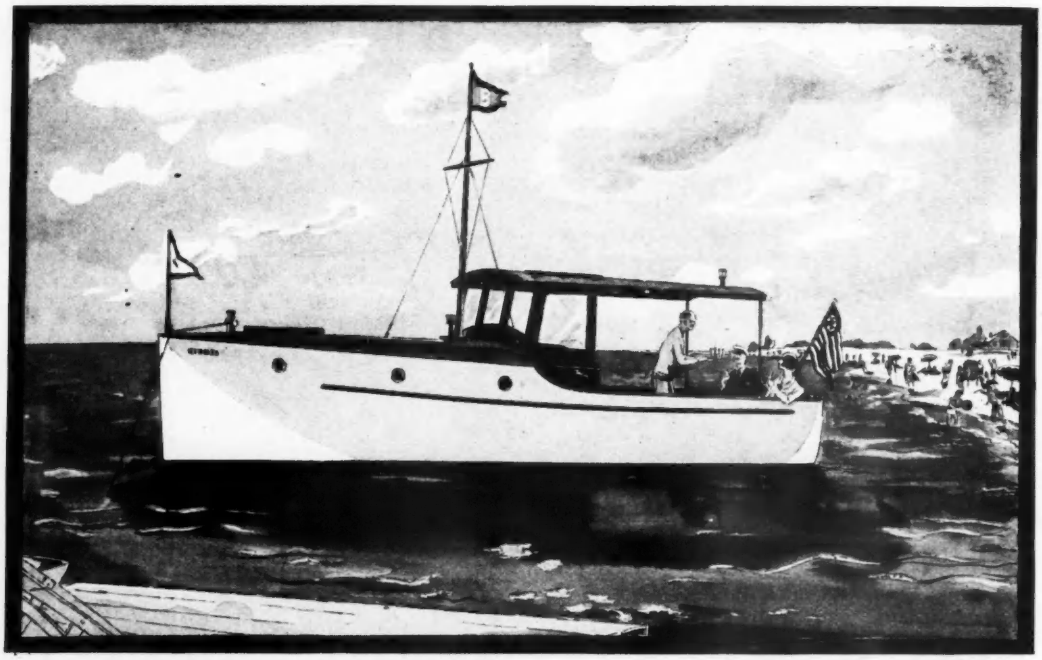
The net result of this service is that the boat is returned to the owner in the best possible condition for another season's use.

It is only reasonable that the builder of a boat is best suited to care for her. At Bayonne we are intimately familiar with every detail and have all special equipment necessary for any work. All needed parts are available so that work proceeds with a minimum of trouble and expense.

Boats stored at Bayonne are not confined to those locally owned. Many travel long distances so that their owners may feel confident that they will get the best possible care and overhaul.

Elco Storage Service is on a flat rate basis for all Elco boats. In addition we are prepared to store and overhaul other boats at nominal charges or to store boats afloat in our basin at low rates.

A THOUSAND MILES OF TRAVEL *for a song and sixpence*



THE ROVER* lies at anchor in Amityville, its home mooring, with an air of jaunty self-assurance. For this trim little Twenty-Six has to its credit many a long mile of travel—a record of complete dependability under seagoing conditions of every kind.

Its owner, John Greenley*, is young, an enthusiastic sportsman, and proud of his boat. Most of all, he is impressed with the opportunity it offers for inexpensive, comfortable travel. No railroad fares, no hotel bills, no garage bills. Certainly, he says, an ideal way to "go places!" All the way, the compact comfort of a complete little home on the water . . . Freedom to lie at anchor or move on at will—to swim or fish or "sightsee," as whim decides . . .

In the summer of 1927 the Rover made its longest cruise with its owner and one guest aboard. Leaving Amityville on a fine July afternoon, she nosed her way out into Great South Bay, anchoring later for the night beyond Long Beach. Early in the morning, safely through New York Harbor, and then the Hudson's fifty miles of impressive scenic beauty, anchoring that night at Kingston.

Then followed day after day of adventurous travel. Through the picturesque Mohawk Valley . . . around the east end of Lake Oneida . . . a stop-off at the Oswego Yacht Club. Then out into the waters of Ontario and, at the end of the fifth day, into Alexandria Bay—five hundred miles from home. Then in Canada, visits to quaint French towns—to Montreal—along the St. Lawrence as far as Sorel. Finally, a smooth, uneventful trip home again . . . By far the most satisfactory and decidedly the most economical vacation trip this owner ever took.

• • •

The history of every Elco boat is as thrillingly individual as the man who owns it. For each owner finds in the opportunity for independent voyaging a constant stimulation and a challenge, and each responds in a characteristic way.

At Port Elco, where we will be glad to receive you at any time, you can get right aboard a Twenty-Six (or any other model on display) and make your own tour of inspection. Or write to Port Elco for Catalog M.B.G.

PORT ELCO (*Permanent Exhibit*)
247 Park Ave., at 46th St., New York. Distributors in Boston, Chicago, Los Angeles and Fort Lauderdale. Plant and Marine Basin, the Elco Works, Bayonne, New Jersey.

The Elco Fleet: Twenty-Six, $2,975; Veedette, $4,875; Cruisette, $5,950; Thirty-Eight, $10,750; Forty-Two, $16,500; Fifty, $25,500.

*Although this series of advertisements recounts bona fide experiences of Elco owners the names used are fictitious.

Elco
MOTOR BOATS

MR. KINGSLEY, *Manager of Port Elco, Resigns*

IT is with regret that The Elco Works announce the resignation of Mr. Ralph H. Kingsley, formerly Manager—Division of Sales, effective September 1st. Mr. Kingsley has been associated with Elco for many years and was instrumental in the creation and organization of Port Elco, the pioneer permanent exhibit and salesroom of motor boats in the world. Mr. Kingsley will be connected with firm of Cox & Stevens who are to be congratulated on obtaining the services of so able an executive.

The New Management of PORT ELCO

THE Elco Works, of The Electric Boat Company, take pleasure in announcing the appointment of Mr. Preston L. Sutphen as General Sales Manager. Mr. Sutphen will be in charge of all Elco Sales activity with offices at Port Elco, 247 Park Avenue, New York City. In addition to his new duties he will remain Sales Manager of The New London Ship & Engine Works of The Electric Boat Company, manufacturers of Nelseco Diesel Engines.

Courtesy of Blank Stoller, Inc.

Mr. Sutphen is a graduate of Princeton University and an authority on Diesel engines as well as motor boats, having studied both in Germany and in the United States. During the war he served in the Army Air Service and still retains an active connection with that branch of the service.

* * *

Courtesy of Blank Stoller, Inc.

Mr. H. M. Baker has been appointed Manager of Port Elco, headquarters for sales in New York district. Mr. Baker is a graduate of the U. S. Naval Academy and has been connected with The Elco Works since his resignation from the Navy in 1923. He is a member of the Manhasset Bay Yacht Club and the Cruising Club of America. His wide experience in yacht cruising under power and sail will be of assistance to the prospective boat owner in choosing the boat best suited to the purchaser's needs.

* * *

The Special 36-foot Elco VEEDETTE

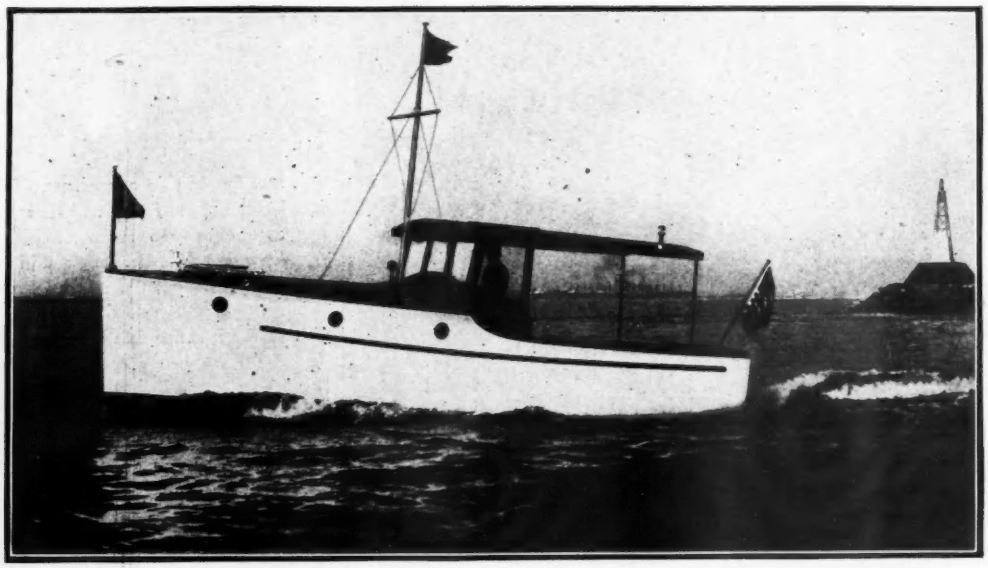
In earlier issues of Elco Boating mention has been made of two Special 36-foot Veedettes under construction for owners who liked the type and appearance of the standard model but who wanted a larger boat and, in one case, a boat with greater speed.

The accompanying photograph shows the "GRETL" owned by Mr. John Gans of Staten Island. This beautiful express cruiser is powered with a Sterling Dolphin Special. Her hull is varnished mahogany, double planked on the bottom and seam battened on the sides. All her hardware is chromium plated and her joiner work and appointments are of the highest order.

Mr. Gans is an experienced yachtsman and through his collaboration in the design of the boat many niceties of detail were incorporated to meet his particular requirements. "GRETL" is indeed a lovely craft and never fails to draw forth admiration from critical boat people wherever she is seen.

The Elco Twenty-Six

comfortable—complete—and reasonably priced



NO LONGER do you need to be a bloated bondholder to enjoy summers of cruising pleasure. The day when to own a boat was a "rich man's luxury" is over.

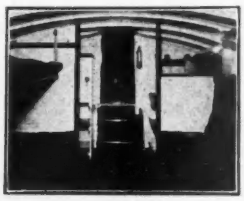
Here is the Elco Twenty-Six—complete as a boat can be—comfortable, safe and seaworthy—and within the range of your pocketbook.

Less than $3,000 . . . and here are all the comforts that can possibly be packed into twenty-six feet of space. A roomy cabin with four spring berths. Complete galley—with two burner stove, sink, drainboard, shelves, ice box. Comfortable cockpit with permanent awning, windshield with side wings, storm-proof side curtains.

A sturdy, dependable six-cylinder Elco Gray engine guarantees you a speed of 10 miles per hour. And there's a 45-gallon fuel tank.

See the Elco Twenty-Six on display at Port Elco (46th Street and Park Avenue, New York City). You need go no farther for a comfortable, safe cruiser completely equipped and thoroughly seaworthy—at a price that won't frighten you. Write us for Catalog MBG.

Sleeping on the Twenty-Six is like sleeping at home—but much quieter. Four comfortable berths and lots of locker space.



You have plenty of room in the Twenty-Six cabin—room to stand up, room to lie down, room to turn around in.

The Elco Fleet

Twenty-Six	$ 2,975
Veedette	4,875
Cruisette	5,950
Thirty-Eight	10,750
Forty-Two	16,500
Fifty	25,500

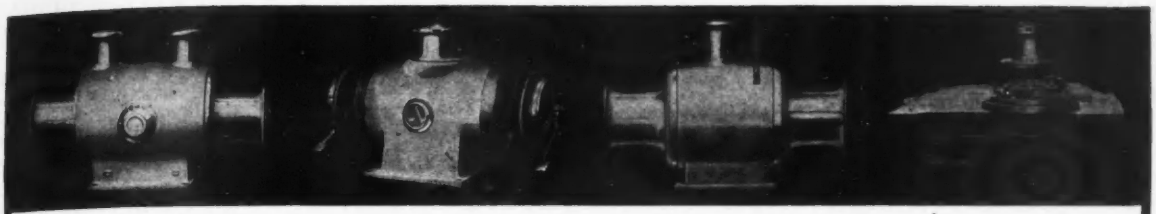
Elco
TRADE MARK
MOTOR BOATS

PORT ELCO (Permanent Exhibit)
247 Park Avenue, at 46th Street
New York

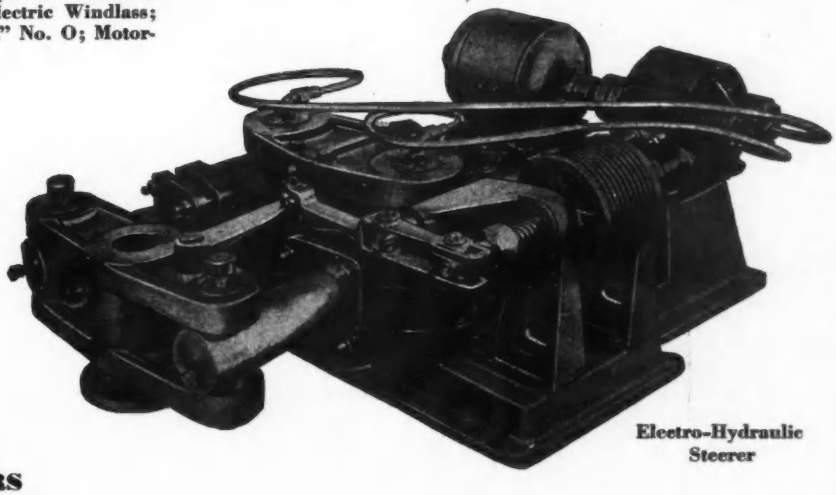
Plant and Marine Basin, The Elco Works, Bayonne, N. J.

Distributors in

BOSTON—*New England Marine Sales Co., 882 Commonwealth Avenue*
LOS ANGELES—*Yacht & Motor Sales Corp., Wilmington, Cal.*
CHICAGO—*Henry C. Grebe & Co., 400 North Michigan Avenue*
FT. LAUDERDALE, Fla.,—*Lauderdale Yacht Basin, Inc.*



ABOVE, *left to right*—Type "D" Boat and Sail Hoist; Type "G" Electric Windlass; Hand Windlass Type "J," No. O; Motorboat Electric Windlass.



Electro-Hydraulic Steerer

A-E-CO DISTRIBUTORS

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THE MCCAFFREY CO.
311 West Broadway
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PEDEN IRON & STEEL CO.
Houston, Texas

BELOW, *left to right* — Horizontal Electric Hoist; Worm-geared Electric Windlass; Electric Drum Type Steerer; Worm-gear Davit Winch.

▲ ▲ ▲ Choice of those who know A-E-CO AUXILIARIES

On boats that set the pace for smartness you will find A-E-CO Auxiliaries. Right mechanically, they are rugged, dependable machines.

The electro-hydraulic steerer illustrated above gives the sure, dependable control of the rudder essential to safe navigation.

Compactness, power, economy . . . these are assured in A-E-CO Electro-Hydraulic Steerers by the use of the Hele-Shaw variable stroke, reversible pump. No hydraulic steerer can be better than its pump; no pump can be better than the Hele-Shaw.

WRITE FOR CATALOGUE

AMERICAN ENGINEERING COMPANY
2419 Aramingo Avenue **Philadelphia**

. . . with the

Self Adjusting

spark gap . . .

THE MotoMeter Spark Plug is the realization of a principle long appreciated in the ignition field . . . . a spark plug with a self-adjusting gap. Any fixed gap plug must be a compromise; too wide for easy starting, too short for proper running.

This plug is not a compromise. Its gap when cold is 15 thousandths, when hot, 30 thousandths of an inch. As a result, your engine starts on the first turn with a thick, hot spark, and runs with high economy of gas consumption with a long, lean, power-full spark.

Only in the MotoMeter Self-Adjusting Spark Plug can you get this freedom from compromise. Two sizes, metric and ⅞" thread. One price, $1.00 list. Equally as good on 1929 motors as on the older types. If your dealer does not carry them, write us direct.

N. B. Special dealers' proposition open for immediate acceptance. Write or wire.

MotoMeter Gauge &
Equipment Corporation
5 Wilbur Avenue, Long Island City, N. Y.

MotoMeter Gauge & Equipment Corp.
of Canada, Ltd. Hamilton, Ont.

MOTOMETER
SELF-ADJUSTING
SPARK PLUG

The Devil Take the Hindmost

(*Continued from page* 25)

and in order to use the motor at all I have to remove it. That leaves me at the start of an auxiliary race with nothing but the juice in the storage battery and the strength of my right arm to get the motor going. And after I had cut two knuckles to the bone I decided to run the battery down first and then cut the motor up with a hack saw and toss it over to save weight. I mention these matters because I have always contended that if you nurse a marine motor and don't swear at it it will give you good service. Perhaps I have been wrong.

It was about here in the race that Bunny evolved that title. We certainly looked as if we would be last. Along toward dark, however, the motor running beautifully, we found ourselves near Oldfield Point. Here a longed-for southwesterly came in. At last we sailed, and under mainsail, balloon jib, and spinnaker we fairly smoked along. In another couple of hours we saw a torch flashed on a sail to port of us and presently picked up a green light and overtook it and left it astern. So we began to think that we might not be last. The night passed, enlivened by another couple of hours under power when the wind failed, and daylight found us off Orient Point.

Plum Gut was ahead of us—Plum Gut, which is dreaded by Long Island Sound sailors second only to the Race—and we had arrived too late to catch the ebb tide through it. All but two of our competitors had had the skill and the power to carry the fair tide out of the Sound. Rigg, who had the watch at this time, wisely elected to cross the Gut and pass between Old Silas Rock and Great Gull Island, and when I came on deck a bit later he suggested that it was time to start the motor. It certainly was. The night breeze was making way for the morning calm and we were no more than stemming the tide.

Fearfully I took the lid off the motor and looked in. It seemed docile enough, and I poured a little oil into the crankcase to replenish that which had poured into the bilge, screwed down the grease cups, said a prayer, turned on the switch, and pressed the starter button. It went off like a breeze—like the same breeze, in fact, that had just gone off to leeward. At a speed of four knots over the ground we hummed into Gardiner's Bay, and I asked Rigg if he would take back all the nasty things he has been telling me about marine motors since we started sailing together six years ago. He reserved comment.

Ahead of us a matter of two hundred yards we could see the far edge of the current that was holding us back. Three minutes more and we should have been in relatively slack water, able to take advantage of the vagrant breeze and save our limited allowance of fuel for another emergency.

Then the motor stopped firing in one cylinder, then in two, and finally in three. Before I could get below it had stopped altogether. But I could see plainly enough what had happened. The circulating pump had chosen this nerve-wracking moment to start spraying salt water all over the ignition wires and connections. Of course I dried everything in sight with a soft cotton cloth, and of course I couldn't get all the moisture off the wires, and inevitably I put the lid back on the motor and let time and heat do their work. We had the pleasant experience of seeing a yawl and a sloop pass through Plum Gut under power and almost overhaul us. And we had the unutterable pleasure of watching the yawl Gleam streaking it back for the Gut after having rounded Block Island. She had all sails furled and was hopping along like a jack rabbit. Then if never before we began to appreciate that in an auxiliary race one must have power as well as sail.

Toward midmorning of this day, Saturday, a welcome southeasterly riffled the water to seaward, and under mainsail, foresail, jib, and jib topsail we once more purred along. The yawl coming our way had steered a more southerly course and was almost abeam of us when the new slant came in. But we had the wind fresher on our course for the southern end of Block Island and we gradually drew ahead. Now from both sides of the Island we saw other competitors, homeward bound. We had grown accustomed to the sight and our slogan "Devil Take the Hindmost" was brought into use again.

At the island itself we had a wonderful streak of luck. Coming down on the western shore and rounding the southern end, we found a fair tide which sucked the numerous lobster buoys under at a great rate. Somebody expressed the jocular hope that circular tides flow around Block Island, and I'll be blessed if the hope wasn't realized. Or if they don't have rotary tides in that region we at least caught the last of the ebb on the approach to the island, slack water to south'ard of it, and the first of the flood going up the eastern side.

Here Rigg and his young brother and Lorna Whittelsey's brother got in some of their expert work. While I grasped the tiller and looked competent they set the spinnaker to starboard and we leaped away from the competing yawl, which was sail-

(*Continued on page* 90)

Advertising index will be found on 3rd last page

The HOLLEY

Down-draft Marine Carburetor

WINS

at Newport Regatta

AT the Newport Regatta, August 2 and 3rd the new Holley Down-draft Marine Carburetor proved its superiority in the various events for stock runabouts. The 5 winning Chris-Craft Boats, Kermath and Chrysler Engines all of which were equipped with the Holley Down-draft Carburetor, walked away from all competitors. Why? Because this new carburetor gives the motor as much as 20% more power, greater smoothness and a certainty of operation under all conditions of speed and load.

Holley engineers will be glad to give marine engine manufacturers the benefit of their long experience in solving carburation problems. Let us tell you in detail and show you by actual demonstration why you should use the new Holley Down-draft Carburetor on your 1930 models.

HOLLEY CARBURETOR CO.

DETROIT MICHIGAN

As Usual!

Chris-Craft sweeps the field

Chris-Craft are not built primarily to win cups—but they win them just the same. This year again it has been the old, old Chris-Craft story everywhere—Chris-Craft sweeping the field clean in the face of the keenest rivalry. At Newport, Delaware River, Lake Winnipisaukee, Houston—regattas great and small everywhere have been a succession of Chris-Craft triumphs. Overseas, at the Belgian International and in Copenhagen, Chris-Craft's thrilling performance has left its mark. Again Chris-Craft's known superiority of design, of in-built quality, and of performance is proved by these fresh victories of Chris-Craft owners. ¶ You can have a motorboat that will give you the ultimate in luxurious comfort, in safety, and in long life, and still have a cup-winner if you choose a Chris-Craft. No matter what style or type you want, from the fleet runabout to the flawlessly appointed 30-mile an hour cruiser—the craft of your dreams is waiting for you among the eighteen matchless models of the Chris-Craft fleet. No matter where you cruise, Chris-Craft standard service is waiting for you in every port. And no matter in what company you may choose to go, the name of Chris-Craft is the one that is accepted

Chris-Crafters have won hundreds of trophies in all the standard runabout events. Chris Smith built boats have won the famous Harmsworth Trophy twice. Don't be satisfied with anything less than a cup winner. Choose a Chris-Craft.

Advertising index will be found on 3rd last page

18 Models • • 22 to 38 Feet • • 30 to 45 Miles an Hour • • 82 to 225 Horsepower • • 8 to 26 Passengers • • $2235 to $15,000

everywhere—unquestionably a world leader. ¶ Choose a Chris-Craft for your motorboat. Learn the joy of the waterways as only a Chris-Craft can give it to you. Have the finest in water transportation by selecting *your* Chris-Craft now—today. Prompt deliveries may be had on most models. Call Your Chris-Craft merchant—he will arrange a trial cruise for yourself and party. There's no obligation, of course.

CHRIS SMITH & SONS BOAT COMPANY, 389 DETROIT ROAD, ALGONAC, MICHIGAN

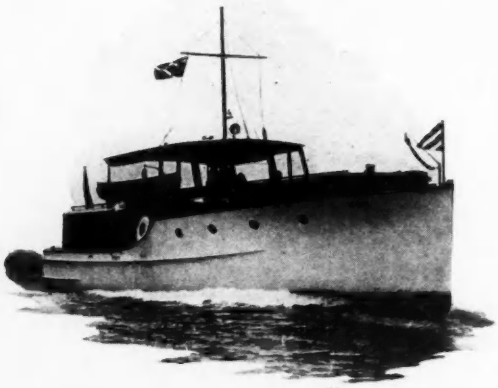
— World's Largest Builders of All-Mahogany Motorboats —

NEW YORK FACTORY BRANCH: 1 West 52nd Street at 5th Avenue

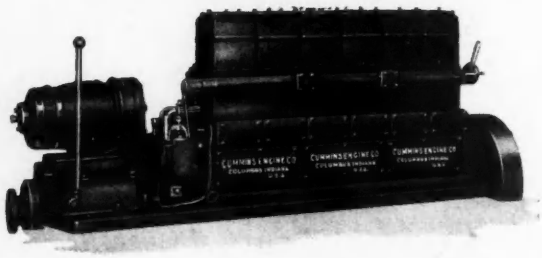
Chris-Craft

This is the Diesel Age and CUMMINS

Is the Accepted Standard for Motor Cruisers



ALBATROSS, a 38'9" cruiser designed and built by Frederic P. Humphreys, Inc. Powered with a 60 H.P. Model U Cummins Diesel, it has a speed of 12 M.P.H.



THE great economy in fuel and the absolute banishment of the fire hazard are recognized characteristics of Diesel power. But all Diesel engines are not identical in design, quality and workmanship, neither are all Diesels suitable for motor boats. You must use the same choice of judgment in selecting a Diesel engine as you would in anything else. Mechanically, the Cummins Diesel engine is superior to all others for pleasure craft up to 75 feet in length. The Cummins is not a converted industrial Diesel but a power plant designed particularly for marine service with a power range up to 235 H.P.—one to eight cylinders. Write today and let us tell you in detail why the Cummins is the better Diesel.

BUY A CUMMINS DIESEL CRUISER

"The Fuel is Prepared"

CUMMINS ENGINE CO., Inc.
Columbus, Indiana

New York Office:
French Bldg., Fifth Ave. at 45th St.
Telephone: Murray Hill 6065

The Devil Take the Hindmost

(*Continued from page 86*)

ing only under mainsail, jigger, and balloon jib. A mile or so after we had rounded the buoy off Block Island Light the gallant crew jibed the spinnaker to port and we fairly boiled up to the turning point at the northern gas and bell buoy.

Then it was in spinnaker in the twinkling of an eye for a close port tack reach under our four jibs, and in a freshening wind we were hopping it back for the Sound. Rigg and I took a little shuteye at this point while Bunny and Chick sailed the cutter. When we came on deck again we found Fisher's Island abeam and the yawl hull down astern. The sloop previously mentioned was out of sight. It commenced to look like a race after all, and we thought seriously of replacing our racing number with the figure 26.

At about this time Bunny remembered to look at the barometer. It registered 29.90. Three hours later it was down to 29.70 and by dusk it had dropped another tenth. So we knew that there was wind coming.

Finding slack water near Little Gull Island, we passed through the Race, only to figure a little later that the tide was turning against us. So, when abreast the eastern end of Plum Island, I once more assumed a prayerful attitude before the motor and pressed the button. Nature had taken its course. With practically the last strength of the storage battery she went.

Before the start of the race we had been allotted 11¼ gallons of gasoline as our allowance. Ten of this had been poured into the tank and the remainder kept in tins for the final emergency which we figured would crop up in the narrow western part of the Sound. As the wind was now slight we considered altering our program and pouring the remnant of our fuel into the tank. But rain was coming down in sheets and we dismissed the thought. Opposite Plum Gut we again saw the competing yawl. She had played a cannier move than we and by passing south of Little Gull had picked up several miles on us. Darkness fell and she was lost to sight. I hope she finished, but she may have been one of those forced out by what happened next.

At nine o'clock when we were abreast of Orient Shoal buoy the motor died for the last time, and from the manner of her passing I knew that the tank was empty. When all was said and done (which was plenty) she had permitted us to use ten gallons of gas. If she had let us use them when they would have done the most good I might have a different story to tell.

But we had no complaints against what happened next. No serious complaints, at any rate. The motor had no more than died, leaving us in that blissful frame of mind induced by the cessation of machinery, than the wind came out ahead—due west. On the port tack we began knifing into it. Knifing is what Hotspur does to perfection, and we began to revise the order of our finish. I estimated that out of the fleet of twenty-eight we would finish eighteenth. Rigg, less hopeful, said we would be the twenty-first to cross the line. Bunny, going to the other extreme of optimism, placed us fifteenth. Chick said nothing, as all the lucky numbers had been chosen.

Along toward eleven o'clock, when we were south of Falkner Island and in the center of the Sound the fleet of Sound steamers came charging down upon us. The biggest of the lot was directly in our way at a distance of one mile, and we didn't like the symmetrical appearance of her running lights. Chanting to myself that well-known ditty

"Green to red and red to green,
With perfect safety pass between,"

I picked up the electric torch and flashed it on our sails. The steamer's red light disappeared and we saw only her green. We didn't like the looks of that because we were on the port tack and she had altered course to port. So the torch was flashed again and as we came closer her range lights changed bearing and once more we saw the red light. Then the green was obscured as she altered still more to starboard. With her searchlight playing on us, she passed at a hundred yards, and feminine voices on her after deck called out "Ship ahoy."

The searchlight of this steamer showed the five other vessels of the fleet what to do, and they all gave us sea room. Later in the night when Rigg and Chick had the deck the westbound fleet overtook us and went through the same proceeding. Curses are probably still resounding in the spacious chart houses of the Sound steamer fleet.

When next I saw the light of day, having passed three hours out of the pouring rain, the lights of New Haven breakwater were abeam and we were sailing the starboard tack toward the Long Island shore. Dawn was breaking and the rain had stopped. The glass was still low, but it had started up and we knew that what was coming would not long be deferred. The wind, blowing at about fifteen miles, was unsteady between west and nor' west.

(*Continued on page 94*)

Advertising index will be found on 3rd last page

NOT AN OVERGROWN RUNABOUT

But—A Full-Fledged—Brilliant Performing 39 Foot Sedan-Cruiser

Those who prefer the alluring speeds of the runabout, but demand the luxuries of a fine cruiser, will find in the Robinson Seagull a logical and satisfying answer to their requirements. Every possible convenience and appointment, every accessory is standard equipment aboard this handsome all-mahogany boat. Speeds up to 32 miles per hour, extreme riding ease and brilliant driving action vie with the flashing beauties of hull lines and painstaking workmanship to mark this one of the smartest sea boats afloat—and the staunchest. Sleeping four, it will carry a party of 20 in equal comfort. A trim all-weather boat, the Seagull is always ready for instant use. The new Robinson catalog will soon be ready for mailing. May we send it?

39-ft. Seagull Sedan Cruiser, Hall-Scott, Sterling or Kermath powered—$13,200 to $14,300; 42-ft. Twin Screw Commuter, $22,500; 38-ft. Red Arrow Day Cruiser, Optional Twin Screw Power, $12,800. Represented by A. C. F. Salons, 217 W. 57th St., New York City; 500 East Jefferson Ave., Detroit, and S. Clyde Kyle, Rialto Bldg., San Francisco; Walter H. Moreton, 1043 Commonwealth Ave., Boston; Kimball Marine Corporation, 29 Wacker Drive, Chicago; R. B. Lechinger, Houston, Texas; Volney Lacy, Rochester, N. Y.; J. A. Scarlett, 436 East Second St., Cincinnati, Ohio; N. J. Shea, 1425 Lauderdale, Lakewood, Ohio.

ROBINSON MARINE CONSTRUCTION CO.
Benton Harbor, Michigan

ROBINSON *Seagull*

1930 BANFIELDS A

Six Attractive N

BANFIELD announces for 1930 six new models, four cruisers and two runabouts, embodying true sea-skiff design long acknowledged by naval science to be the safest type of hull construction for coastal or open water service. Not only does the Banfield insure absolute seaworthiness, but its under body design aids greatly in securing maximum speed per horse power. The two runabouts added to the Banfield line are offered in response to a big demand for runabouts possessing the safety and speed found only in the Banfield sea-skiffs.

BANFIELD "26" RUNABOUT—A beautiful creation built of mahogany and natural finished to high lustre. It has double cockpits, richly upholstered, seating eight to ten people. It is fitted with the most advanced type of operating controls, accessories, hardware and trimming. Power plant is optional with choice of Chrysler, Kermath or Sterling engines, giving speeds of 25 to 40 miles per hour.

BANFIELD "32" RUNABOUT—This brilliant craft, six feet longer than model "26," has a double cockpit seating arrangement for ten to twelve persons. It is built of mahogany, natural finished, and equipped with the finest of appointments. Power plant is also optional for the model "32" runabout with selection of Kermath or Sterling engines, giving speeds of 35 to 38 miles per hour.

BANFIELD "32" STANDARD CRUISER—This model retains the original lines and accommodations of the present 32-foot cruiser, with the exception of the forward cockpit. Other changes which we deem advisable makes it possible to offer the Standard "32" cruiser at a new popular price. The power plant is optional with a choice of Chrysler, Kermath or Sterling engines. Speeds 20 to 30 miles per hour.

BANFIELD "32" DE LUXE CRUISER—In addition to cabin accommodations for four this model has a forward cockpit seating three and De Luxe equipment throughout, including Lux built-in protection system, electrically lighted binnacle and other features which have made the Banfield "32" the world's most popular sea skiff cruiser. Optional motor power: Chrysler, Kermath or Sterling. Speed 20 to 30 miles per hour.

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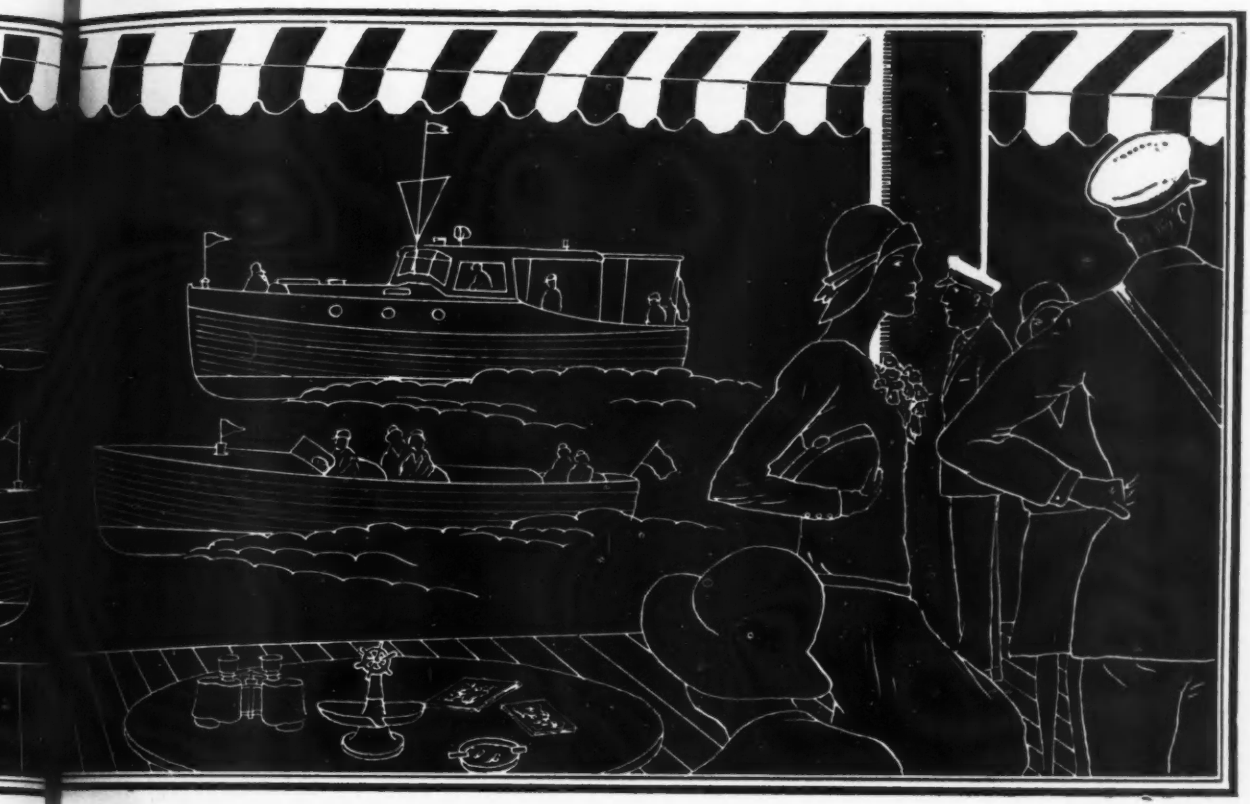

S ARE COMING
ve New Models

BANFIELD "38" SINGLE CABIN CRUISER—This is the ideal boat for a yachting family of six people who demand the utmost in comfort and privacy which few boats of equal size offer. The large cabin is divided into two staterooms with six berths, and has a complete and spacious galley with all essentials. For extensive cruising the Banfield "38" is the last word in comfort and speed. Powered with either Kermath or Sterling engines it has a speed of 20 to 22 miles per hour.

BANFIELD "38" DOUBLE CABIN CRUISER—This model has the added accommodations of a congenial after cabin for two people. The forward cabin arrangement is the same as on the single cabin model. Engine selection and speeds are also the same.

Both 38-foot cruisers have De Luxe equipment.

Write today for advance detailed information. Deliveries on all models will be made in time for Florida season on orders placed promptly.

DISTRIBUTORS AND DEALERS:

The Banfield franchise, one of the most valuable in the industry, offers a sound and permanent business. Your territory may now be open. Write or wire for particulars. Large expansion of Banfield plant and production makes possible this lucrative opportunity for aggressive and responsible dealers.

BANFIELD SEA SKIFF WORKS INC.

SALES OFFICES AND PERMANENT EXHIBIT

277 Park Ave. Bldg. - ENTRANCE 502 LEXINGTON AVE. - *New York City*

PLANT: ATLANTIC HIGHLANDS, NEW JERSEY

LARGEST BUILDERS OF SEA SKIFFS IN THE WORLD

You Can Have the Best Vacation Ever in a WHEELER "PLAYMATE"

The finest weather is now here and right ahead of you. A WHEELER "JUNIOR PLAYMATE" is all ready to help you enjoy it. These snappy little 26-foot Sport Cruisers are snug, trim and strikingly smart —rugged and entirely seaworthy. They can be delivered immediately. Come down to our plant and see them.

Prices: Speed 14 m.p.h. $2975;
Speed 22-25 m.p.h. $3500

Write for our Catalog "A"

WHEELER SHIPYARD

Coney Island Creek & Harway Ave.

Brooklyn, N. Y.

Tel.: BENsonhurst 5091 and 8550

WHEELER PLAYMATES

The Devil Take the Hindmost

(Continued from page 90)

At about seven of Sunday morning it freshened so that our lee deck was well under and I suggested to Bunny that he go forward and take in the jib topsail. This is a wet process on a boat as small as Hotspur, involving perching astride the bowsprit and taking a Sitz bath every time it plunges under. But Bunny as well as Chick had already proved themselves adept in this sort of work, and the sail was coming down neatly when we heard a loud report. Looking forward, I saw that the working jib was sagging down the stay.

At my hail Rigg came on deck to take the tiller and I went forward to help Bunny and salvage the jib. A glance showed what had happened. The wire pendant supporting the upper block of the jib halliard had let go, and unless we found calm water we should have to finish the race without the jib. Passing the jib topsail to me as he unhanked it, Bunny next boused the working jib down on the bowsprit and we went aft to talk things over.

The wind was freshening all the time and it began to look as if we could do very well without the working jib. But some other headsail besides the jumbo was needed to give us an easier helm, and by shackling the balloon jib halliard to the jib stay and the head of the jib topsail we set that small sail as a regular jib. First, however, we came about to the port tack to seek quiet water under the Connecticut shore. The wind by now was piping up at a great rate and we began to take 'em over green.

Our next move was to roll down a reef in the mainsail. The hours that I have spent in heavy weather tying in bad reefs in the old fashioned way pass from my memory like an unpleasant dream now that I have a roller reefing gear. With this contraption which is still damned by most yachtsmen, one man stands at the ratchet at the fore end of the boom and another stands by to slack off the halliards. Then, whether the boat is on the wind or off, the first man rolls as the second slacks, and in three minutes the foot of the sail is neatly rolled around the boom and the lee deck comes up for air.

"It can't be done," say the theorists, thinking of the acute angle between the mast and the boom. The answer is that it can be done, and Rigg, Bunny, and Chick who had never been shipmates with a roller before agreed that they had never seen a neater reef.

"It cuts the sail," say the theorists. And the answer to that is, "It may not, and if it does, what of it?" When it's blowing hard enough to reef one thinks more of the safety of the boat as a whole than of the ten minutes with sail palm and needle that may come later.

As we neared Penfield Light and made up toward the entrance to Bridgeport we saw that we would find no quiet water on the weather shore. Five hundred yards to leeward of the beach there was plenty of sea to wet a boat of Hotspur's inches, while the dust clouds blowing off the land showed—if we had needed showing—that the wind was traveling. Before coming about I doused the second jib and while we were still in the partial lee of the land unbent the regular jib which had been lashed to the bowsprit and brought it inboard. It was evident then that we should have no further use for it and it would not be improved by fifty miles of Long Island Sound washing over it.

On the starboard tack we rolled down a second reef—the sail wrapping around the boom as far as the lowest batten. At that point the jumbo balanced the little cutter perfectly, and we settled down for an all day battle. By this time the wind was really blowing. Forty-four miles an hour was registered in New York that Sunday morning, and with the full sweep of the Sound in which to gather strength it was doing fully as well where we were. In fact, Rigg and I both put the gusts at fifty miles and the steady strength of the wind at thirty-five. Reefed down and with only the backstay runners to handle in passing through stays, we had nothing to worry about except the direction of the wind.

For the first hour or so after passing Penfield the best we could steer was southwest, and in two tacks made toward the Connecticut shore in a vain search for smooth water we gained only three miles. It looked then as if we would make a night as well as a day of it, and we wondered whether we could stick it out that long. We could tell from the wonderfully easy motion of the hull and her eager reaching up to weather that Hotspur would stand it, but could the crew?

Fortunately the wind took pity on us. At about ten in the morning it settled in the nor'west—a hard blow and the shortest, nastiest sea that any of us had seen in the Sound. We then held a course of west-sou'west and never again left the starboard tack. One by one the landmarks passed by as Rigg and I took turn and turn at the tiller. There was nothing else to do on deck and we let the boys lie in to save their energy for whatever emergency might arise. Spray flew from

(Continued on page 98)

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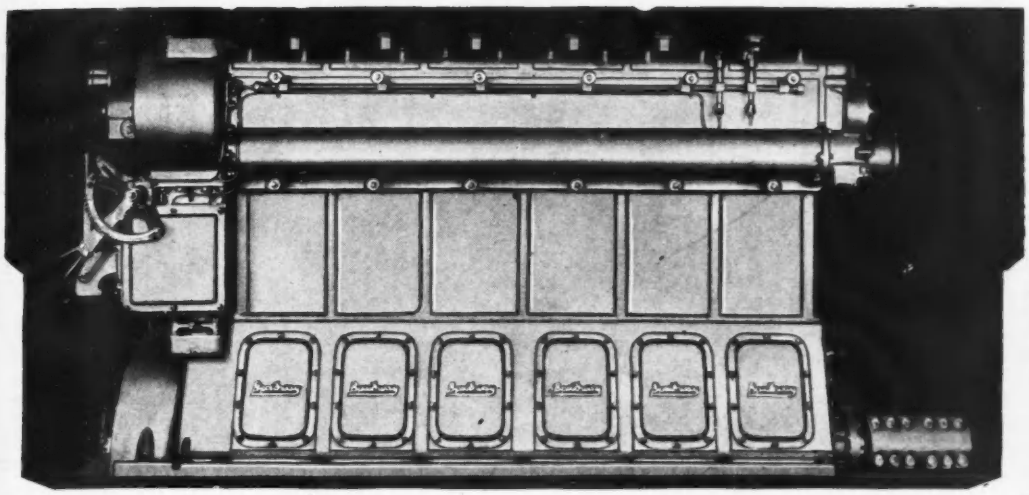


A POWER PLANT

WORTHY OF THE FINEST YACHT AFLOAT

The praise that flows spontaneously from appreciation of flawless performance is the foundation of Speedway Diesel reputation. Owners freely voice their pride in its abundance of smooth, silent power.

This fine engine has set new standards of simplicity and efficiency, of economy and endurance. And its dependability is acclaimed wherever discerning yachtsmen gather.

Whether you are considering a new yacht or the re-powering of your present one, our engineers will gladly consult with you. No obligation is involved.

Speedway
DIESEL ENGINE

CONSOLIDATED SHIPBUILDING CORPORATION
MORRIS HEIGHTS NEW YORK

Pioneer users find Monel Metal Shafts "Most Satisfactory" for.. DODGE WATERCARS

Below: 26 ft. Dodge Watercar powered for 33 M. P. H. with Lycoming straight eight motor and Monel Metal shaft with Goodrich Cutless rubber bearings. Built by HORACE E. DODGE BOAT WORKS, INC., Detroit, Mich.

HORACE E. DODGE BOAT WORKS
INCORPORATED
MANUFACTURERS OF THE
DODGE WATERCAR
584-614 LYCASTE AVENUE
DETROIT, U.S.A.

May 25, 1929.

The International Nickel Co., Inc.
67 Wall Street,
New York City.

Gentlemen:-

You will doubtless recall that we were the first manufacturers of stock motor boats to adopt Monel Metal Shafts. These are now standard equipment on the 26-ft and 30-ft Dodge Runabouts. We made this decision only after giving Monel Metal Shafts the most severe tests, and found that they stood these tests perfectly.

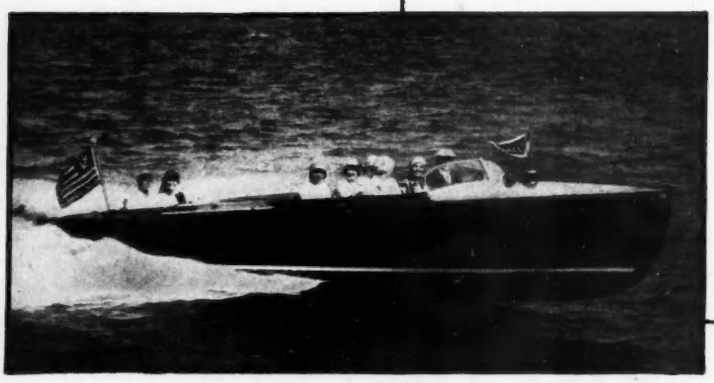
The 26-ft Dodge Runabout which made the successful run from Albany to Miami in the Fall of 1927, was equipped with a Monel Metal Shaft. Upon the arrival of the boat in Miami, the shaft was examined and found to show no signs of wear, twisting or fracture.

We are pleased to advise that we will continue to use Monel Metal Shafts on our 26-ft and 30-ft models, as we consider them to be most satisfactory.

Yours very truly,

HORACE E. DODGE BOAT WORKS INC.

Wm Kay
Treasurer.



Monel Metal shafts increase the life of babbitt or bearing bronze, and are especially recommended with Goodrich Cutless rubber bearings.

SEND FOR NEW ILLUSTRATED BOOKLET, "MONEL METAL SHAFTS AND BRIGHTWORK"

Monel Metal is a technically controlled Nickel-Copper alloy of high Nickel content. It is mined, smelted, refined, rolled and marketed solely by The International Nickel Company, Inc. The name "Monel Metal" is a registered trade mark.

MONEL METAL

THE INTERNATIONAL NICKEL COMPANY, INC., 67 WALL STREET, NEW YORK, N. Y.

MONEL METAL

Advertising index will be found on 3rd last page

Photo shows 26' Dodge Watercar, one of the popular models in the Horace E. Dodge line—Monel metal shafts and Goodrich Cutless Bearings standard equipment

NOW – Dodge chooses Goodrich Cutless Bearings *as standard equipment*

HORACE E. DODGE Boat Works, of Detroit, one of the premier designers of fast watercraft in America, notorious for the care with which they select equipment, have now made Goodrich Cutless Rubber Bearings standard equipment, after tests extending over many months, in which Goodrich Cutless Bearings had to prove they could deliver superior performance—against the field.

By this decision, the owners of Dodge Watercars are assured of a new freedom from the once inevitable mid-season haul-out for shaft or bearing renewal. For Goodrich Cutless Bearings outwear any other type of bearing, and eliminate shaft scoring and shaft vibration, even in water containing sand and grit. Sandy particles cannot become imbedded in the rubber surface of a Goodrich Cutless Bearing as they do in lignum-vitae and other hard surface bearings. The result—a trouble-free performance that is specially noticeable in fast craft where high speeds are consistently maintained.

Have Goodrich Cutless Bearings installed the next time you are obliged to have bearings renewed. Goodrich Cutless Bearings outwear all other types of bearings. No change of propeller shaft size is involved. Goodrich Cutless Rubber Bearings effect notable economies in commercial craft installations. Furnished in shaft diameters from ¾ inch to 24 inches.

For your present boat or your next boat, be sure to ask for Goodrich Cutless Bearings. They can be easily installed on craft of any size, from power Dinghies to ocean-going yachts. They are especially recommended for use with Monel metal shafts. Let us tell you more about these remarkable bearings. Ask any of the distributors listed below, or write to The B. F. Goodrich Rubber Co., Est. 1870, Akron, Ohio (In the West, Pacific Goodrich Rubber Co., Los Angeles, Cal.)

DISTRIBUTORS

METROPOLITAN DISTRICT
Topping Bros., 159 Varick St., New York City.

FREEPORT, L. I., N. Y.
The Columbian Bronze Corp.

BOSTON, MASS.
Walter H. Moreton Corp., 1043-45 Commonwealth Ave.

HARRISBURG, TEXAS
Peden Iron & Steel Co.

LOS ANGELES, CALIF.
Pacific Goodrich Rubber Co., 1386 E. 7th St.

SAN PEDRO, CALIF.
Marine Hardware Co. 509 Beacon Street

NEW ORLEANS, LA.
Arthur Duvics Sons, 122 Chartres St.
Alker-Donovan Co., Inc., 435 Camp St.
Stauffer, Eshleman & Co., Ltd.

WASHINGTON, D. C.
R. L. Fryer, Special Rep., The B. F. Goodrich Rubber Co., Cutless Bearing Division, 430 Transportation Bldg.

CHICAGO, ILL.
K. M. Walker & Co., 327 So. La Salle St.

MIAMI, FLA.
Hopkins-Carter Hardware Co. Miami Ave., and S. E. 2nd St.

PHILADELPHIA, PA.
Marine Equipment & Supply Co., 116 Walnut St.

SEATTLE, WASH.
Pacific Goodrich Rubber Co., 115 King St.; Pacific Marine Supply Co., 1223 Western Ave.

SAN FRANCISCO, CALIF.
Pacific Goodrich Rubber Co., 355 Brannan St.
C. V. Lane, Balfour Bldg.
Johnson, Joseph & G. M. Josselyn & Co.
56 Sacramento Street

DETROIT, MICH.
H. H. Smith & Co., 334 E. Jefferson Ave.

TAMPA, FLA.
Knight & Wall Co.

BALTIMORE, MD.
The James Walker Co., 123 Light St.

TORONTO, 2, CANADA
John Leckie, Ltd. 77 Wellington St. W.

VANCOUVER, B. C.
Fleck Brothers, Ltd., 110 Alexander St.

LANCASHIRE, ENGLAND
British Goodrich Rubber Co. Ltd., Leyland.

FRANCE
Societé Française B. F. Goodrich, Colombes (Seine).

Goodrich Cutless Bearings

NOW TESTING
an
astonishing
new craft

our
1930
MODEL
on our
proving
grounds-
The OPEN SEA
⚓
Watch for announcement
next month!

Staples,
Johnson & Co.
POOL STREET
BIDDEFORD - - - MAINE

"It costs less to build
better boats in Maine"

The Devil Take the Hindmost

(*Continued from page* 94)

the wave tops and we were drenched to the skin, but the [sun] had at least an October warmth in it, and as we saw Eato[n] Neck and then Lloyd's on our lee bow we began to take [a] rosy view of things. We were being slowly forced away fro[m] the weather shore, yet from time to time the wind let us u[p] and as Matinicock and Sands Point hove in sight they were well to leeward.

So the day passed—cold, wet, but rapidly. I have sailed on many schooners that lie down and die when close-hauled in a heavy sea, and it was a rare treat to watch Hotspur do as she was designed to do and work out to weather. At 5:25, the wind moderating slightly, we unrolled the second reef, and at 5:35 we weathered Sands Point Light by a matter of yards. Then we could bear off a bit and as there appeared to be a competitor astern we unrolled the remaining reef and smoked along. So at 6:15 we rounded Stepping Stones Light and slacked the sheets still more and at 6:20 we crossed the theoretical finish line off Great Neck dock. The committee boat had withdrawn from station, but we were clocked from the shore.

In the mouth of Little Neck Bay the cutter Windrush, owned by J. S. Wilford of Philadelphia, lay uneasily at anchor.

"How did you finish?" we asked as we tore by.

"Eleventh," her crew replied. "You're twelfth."

"And when did you finish?" we had time to ask.

"One-seventeen."

Excitedly we looked up Windrush in the dope sheet. She is 47 feet on top and we are 32, so she allowed us five hours and ten minutes. We had saved our time by seven minutes. The devil had taken the hindmost and shoved us up to eleventh place.

Twenty-eight boats started. Nine finished early Sunday morning before the dirt blew up. Then along came that formidable motor sailer Nancy R which gives advocates of the fifty-fifty boat a good strong leg to stand on, and then Windrush. Finally we breezed in, and three hours after us the schooner Volador and an hour later the yawl Norseman.

But the remaining fourteen did not finish. Parted shrouds, holes stove in bows, stress of weather, and that dismal malady which is never wired to the race committee as a reason for dropping out accounted for them, all the way between Block Island and Oyster Bay.

As I was saying, it seems they had an auxiliary race down at Bayside. And a damned good race it was.

SUPERIOR SHAFTING AND BRIGHTWORK

The International Nickel Company of 67 Wall Street, New York City, manufacturers of Monel metal, have prepared a little booklet to illustrate and describe the many different uses to which this new metal may be put. As a material for propeller shafting, Monel has proved in a great many installations in all kinds of boats, its ability to stand up under unusually severe service conditions, demonstrating at the same time its corrosion-resisting qualities and great strength.

Monel is also especially well suited to use in boat fastenings of all kinds such as bolts, lag screws, wood screws, etc., as well as all sorts of trim. As a material which combines strength, beauty, durability and service, Monel provides a metal which is ideally adapted to use for either salt or fresh water.

Copies of this interesting catalog may be secured by writing to the International Nickel Company at the above address.

STOCK RUNABOUT CROSSES THE NORTH SEA

A short time ago a stock English-built 30-foot runabout successfully accomplished the hazardous crossing of the North Sea from Aberdeen to Stavanger, in Norway, carrying Colonel R. N. Stewart and his wife. As is generally known, the crossing of this particular body of water is a dangerous undertaking for a small boat in view of the fact that the whole sea is seldom calm over any considerable area at a given time. Naturally Colonel Stewart did not start until weather conditions were reported as being reasonably favorable, but after a few hours running he ran into heavy seas perhaps 14 or 18 feet in height which gave the boat a thorough test of its sea-abilitv.

The boat was one of the standardized Thornycroft Sea Hawk models, designed particularly for passenger carrying at the various coastal resorts in England. The Sea Hawk is a 30-foot craft with 7-foot beam capable of carrying twelve passengers at a speed of about 30 m.p.h. The power plant is a Thornycroft model R B six-cylinder marine engine developing 140 h.p. at about 1800 r.p.m.

Advertising index will be found on 3rd last page

REALIZATION

These are the days when those who read Baby Gar advertisements last winter, who inspected Baby Gars at the boat shows, and who BOUGHT Baby Gars, are discovering that we didn't say half enough.

Because there are so many of these joyous Baby Gar owners on the two coasts, the Great Lakes, the Gulf and countless inland waterways; we know that next year ever so many more people who want fine runabouts will insist that Gar Wood build them.

And, so no one may be disappointed, we are now rushing plans for larger shops and increased production.

We suggest, however, that you inspect Baby Gar now. Enjoy a demonstration while the weather is still pleasant—especially if you are thinking how nice it would be to have one of these boats in the south this winter.

If you place your order with the nearest Gar Wood dealer now—you can rest assured your Baby Gar will be in the water to greet you when you flee from winter's chill embrace.

GAR WOOD *Inc.*

THE GREATEST NAME IN MOTORBOATING

429 Connecticut Avenue — 1862 Broadway at 61st St., N.Y.C.

We suggest that you place your order now for late fall or early winter delivery in southern waters.

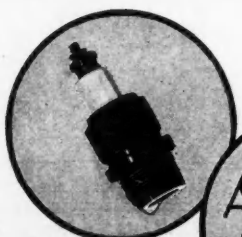
Baby Gar "30"	$2950 - $3550	Baby Gar "50"	$ 8950 - $10,950
Baby Gar "40"	4500 - 5350	Baby Gar "55"	10,950 - 12,950

HARDLY a day passes without news of fresh triumphs won on the water with Robert Bosch Pyro-Action Spark Plugs. But why should you care? You may not race. You may use your boat as most motorists use their car—for leisure, not for speed.

Even so you should care, because the same advantages that have made Pyro-Action Spark Plugs pre-eminently favored among racing enthusiasts, have earned a preference for Pyro-Action Plugs in the engines of all kinds of pleasure boats large and small. The knife edged firing points which give a broader, hotter spark. The precision workmanship... which your eye can see. The stout quality of the materials...the insulator that won't crack ...the electrodes that don't burn off readily. And then, too, the fact that these plugs are made by Robert Bosch, inventor of the famous Bosch Magneto.

Pyro-Action Spark Plugs are the highest priced popular plugs you can buy. But what are a few cents extra compared with the fresh power they give your engine...the utter confidence and security they give to you? Write for free booklet, or ask your marine supply dealer about Pyro-Action Spark Plugs.

ROBERT BOSCH MAGNETO CO., Inc.
3603C Queens Blvd., Long Island City, N. Y.



PYRO-ACTION Spark Plug

The Original Bosch
ROBERT BOSCH PRODUCTS

Only Robert Bosch Pyro-Action Plugs are Original-Bosch Plugs. For your protection look for full name "Robert Bosch" and this trademark

Motor Boats of the Navy

(*Continued from page* 38)

and lack of gangways, picking up men from, and landing men on, submarines with a small boat in the open sea is very ticklish work. Upsets are common and stove-in boats far from infrequent. All of which made the feat of the motor lifeboat crew of the Holland in picking up a dangerously advanced appendicitis case from the S-29 and bringing him back for an operation that was needed to save his life a fine feat of seamanship. When I add that the transfer was made on a moonless midnight during the height of a blustering *papayallo* off the coast of Salvador it will hardly take a sailor to appreciate that his casual rountine operation was really a bit of an epic of its kind.

S-29 was the craft which, as a consequence of tests made off the coast of Costa Rica, had gained the distinction of being the first submarine to be lifted from the bottom of the sea to the surface by means of air blown from the outside. After this now historic experiment, S-29 was detached from the submarine divisions and sent on a lone patrol which was to have lasted until rendezvous was made with the fleet at Mazatlan two weeks later.

When the Holland and her fleet of S- and V-type submarines was ordered to proceed directly to San Diego without calling at Mexican ports on account of the Revolution in that republic, S-29 continued on her patrol. Two days later a radio was received on the Holland stating that a man on that submarine was suffering severe abdominal pains and asking directions for treatment from the Surgeon of the Tender. These were radioed back, but when the patient continued to grow worse the Medical Officers of the Holland diagnosed the trouble as appendicitis and recommended taking measures for getting the sufferer aboard for an operation with the least possible delay.

Rear Admiral Ridley McLean at once gave orders that Holland and S-29 should proceed toward each other at the fullest practicable speed. The combined speed of both of these comparatively slow vessels totalled about twenty-three knots, this bringing the submarine's lights within sight from the bridge of the tender in less than nine hours. This was just after midnight, with a heavy sea running and the darkness almost Stygian from the overcast sky and lack of a moon. As every moment's delay endangered the life of the patient, it was not practicable to wait for daylight or a falling off of the wind and sea.

The motor lifeboat, with the junior surgeon, was lowered from the Holland immediately after both vessels had been hove to at a distance of about a quarter of a mile. I was an eyewitness of only the departure from, and return to, the tender of the boat, but that the highly difficult and dangerous transfer at the submarine was made smartly and carefully was attested by the fact that the enclosed canvas stretcher in which the patient was lashed was hardly spotted by salt water when brought aboard the Holland.

When examination revealed an unmistakable case of acute appendicitis preparations were made at once for an operation. When these were complete the engines of the Holland were stopped to reduce vibration, and an hour later a young sailor, minus an appendix that was almost ready to burst, was resting quietly in the sick-bay. Recovery was so rapid that he was able to return to the S-29 immediately on arrival at San Diego.

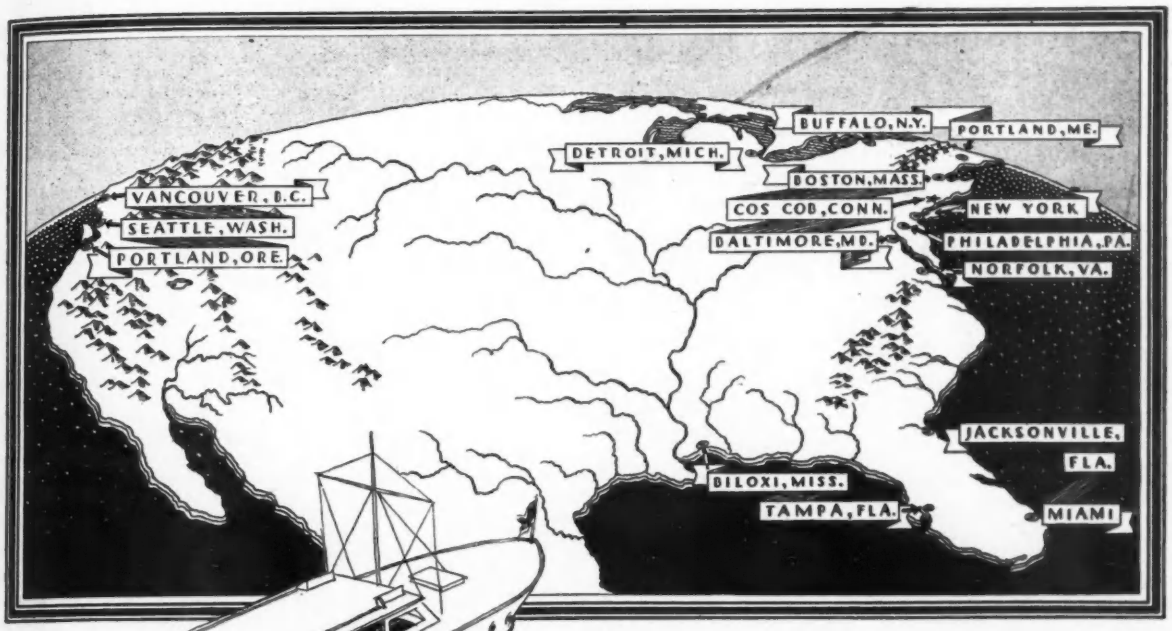
MOTOR BOATS—U. S. NAVY

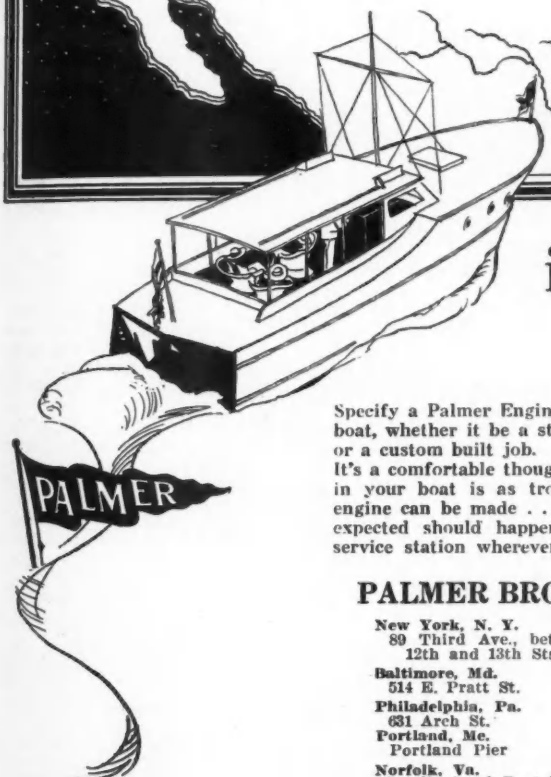
Designation Length	Draft ft.	Speed knots	Capacity men	Capacity stores tons	Engine	Crew	Purpose
50 ft. Motor boat	3	13	50	..	Sterling 145 hp.	4	Officer passenger
40 ft. Motor boat	3	18	37	..	Van Blerck J8 150 hp.	4	Flag Officer's barges
		13			V-type (Navy) 100 hp.		
35 ft. Motor boat	3	13	27	..	Sterling 145 hp.	4	Gigs. Officer passenger
26 ft. Motor boat	3	13	18	..	Norfolks type KK (Navy) 20 hp.	4	Officer passenger
26 ft. Motor Lifeboat	3	8	18	..	Buffalo (Navy) (20 hp.	3	Life boats General Utility.
21 ft. Motor dory	3	8	10	..	Norfolk (Navy) 20 hp.	2	Gig (DDs) Officer passenger
50 ft. Motor launch	3	8	190	13	Norfolk (Navy	4	Stores, Enlmen
40 ft. Motor launch	3	15 8	90	6	Type KK 20 hp. " "	4	" " "
		15					
36 ft. Motor launch	3	8	70	4	" "	4	" " "
33 ft. Motor launch	3	8	50	3	" "	4	" " "
30 ft. Motor launch	3	8	40	2	" "	4	" " "
24 ft. Motor launch	3	8	19	1.5	" "	4	" " "

Two types of engines are used in motor boats and motor launches. Van Blercks and Sterlings in motor boats; V-type (Navy) and Norfolk (Navy) in motor launches. New boats are being equipped with V-type (Navy) engines.

Advertising index will be found on 3rd last page

You can take a Boat *Anywhere*





if it has a *Palmer Engine*

Specify a Palmer Engine when you buy a boat, whether it be a standardized cruiser or a custom built job.
It's a comfortable thought that the engine in your boat is as trouble proof as an engine can be made . . . . and if the unexpected should happen that there is a service station wherever you are.

There is a Palmer distributor in every important coastal city.

The builder will gladly furnish a Palmer Engine. He knows that for 35 years Palmer Engines have proven their merit. He knows the importance of a National system of Service.

PALMER BROS. ENGINES, Inc. Cos Cob, Conn., U.S.A.

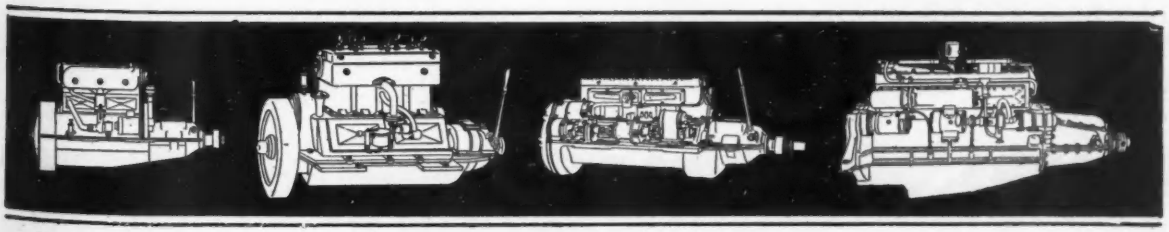
New York, N. Y.
89 Third Ave., between 12th and 13th Sts.
Baltimore, Md.
514 E. Pratt St.
Philadelphia, Pa.
631 Arch St.
Portland, Me.
Portland Pier
Norfolk, Va.
Gas Engine & Boat Corp.

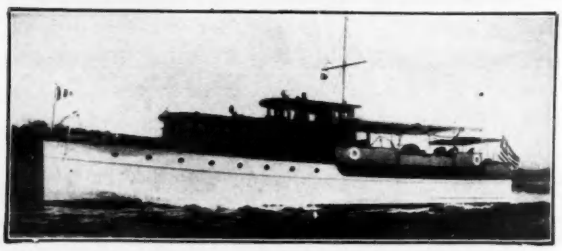
Distributors:

Boston, Mass.
Rapp-Huckins Co., 59 Haverill St.
Portland, Ore.
Oregon Marine & Fisheries Supply Co.
Seattle, Wash.
Pacific Marine Supply Co.
Vancouver, B. C.
V. M. Dafoe, 1100 Powell St.
Jacksonville, Fla.
122 So. Ocean St.
Tampa, Fla.
Foot of Whiting St.
Miami, Fla.
B. H. Schubert, 1008 N. W. 8th St. Road
Biloxi, Miss.
F. B. Kennedy

Palmer Bros. Engines, Inc., are the retail distributors for Lycoming Marine Motors

P. A. L.—4—25 horsepower at 1200 R.P.M.
Little Huskie—15 horsepower at 1500 R.P.M.
P. B.—6—40 horsepower at 1400 R.P.M.
Lycoming—8—115 horsepower at 3000 R.P.M.





Designed and built by us for Mr. L. H. Austin, of New York City

MADGE III

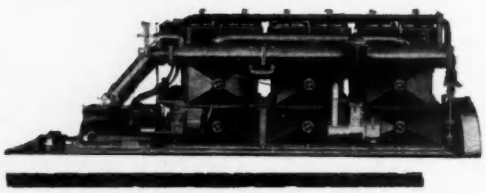
Length 77'. Beam 16'. Draft 3'9". Powered with two 6-cylinder, 100 h.p. 20th CENTURY GAS MOTORS. Speed 14 m.p.h.

Two Double and two Single Staterooms, two Bathrooms. Large deck house. Pilot House with Captain's Stateroom aft. Deck House contains Living and Dining Saloons. Galley and crew's quarters forward, accommodating four paid hands, in addition to Captain's Stateroom.

This Is a Standardized Cruiser

Write for complete details and interior views.

The standards under which every one of our Yachts is built have never been reached by any other shipbuilding organization. Complete to the smallest detail, each Yacht represents the highest form of engineering skill. Our prices are amazingly low.



20th Century Marine Motors

are our own manufacture, and we use them in all our standardized boats. Two models: 4 and 6 cylinder, 60 and 100 h.p. Right and left hand.

The NEW YORK

YACHT, LAUNCH & ENGINE CO.

Morris Heights, New York City

Miss Los Angeles II

(*Continued from page 33*)

large that it would be impossible to start them by hand with a crank. Each engine is started with an Eclipse inertia electric starter. The cylinders are drawn steel inner shells with welded sheet steel water jackets, having 1 exhaust and 1 intake valve per cylinder. Pistons are a new type Miller alloyanum. The crank shaft is full integral counterbalance type, having crankpins 3¼ inches diameter; 9 main bearings 3½ inches diameter.

These powerful engines are termed full port and starboard type, one turning clockwise and the other counter clockwise, viewed from the power end. Connecting rods are of tubular type in units of 3—side banks articulated. The camshafts are quite unique inasmuch as they are driven from both ends being united in the center but built in two parts.

It will be noted from the illustrations that these engines are located pretty far aft, and in order to obtain the proper shaft angle the engine drives forward to a stepped up gear box, and from these gear boxes the propeller shafts are driven.

The pilot of Miss Los Angeles is seated on the right side of the boat in a very comfortable leather upholstered seat and all the pilot has to do is steer the craft. That's all. The mechanician is seated on the left in an equally commodious leather upholstered chair. All he has to do is control the speed of the engines and the gears, which are actuated by levers. The control hookup throughout is perhaps the most interesting of any boat yet launched, and it is beautifully carried out in a manner which synchronized the control.

It will be noted from the illustrations that Miss Los Angeles II has plenty of freeboard and plenty of beam and she is long enough to ride through the dangerous wakes of other craft designed to do more than 100 miles per hour, and so successful was Miss Los Angeles on her trial trip that within a few days she was placed on an enormous flat car and shipped direct to Detroit.

For those who have not had the pleasure of hearing Miss Los Angeles II, will say that only stretched imagination can give one an idea of the sound of the exhausting of 48 of the great cylinders embodied in the construction of these engines, but fortunately for the pilot and mechanism the engines are located aft and these courageous boys are sitting in front where very little, if any noise reaches them as they are driving so fast that the fumes and heat are quickly dispelled. Imagine having the opportunity of riding in such a boat. How would many of the thousands of outboard sportsmen who are pleased with their little craft feel if they could just take the steering wheel of Miss Los Angeles II for a few moments? No doubt a great deal of thrill is obtained with an outboard boat powered with an outboard engine, but never such a thrill as given to those lucky sportsmen who drive Miss Los Angeles II.

Preliminary tests have already been made and high speeds attained. Miss Los Angeles II will be driven in the British International Trophy event by Ralph Snoddy, who recently returned from England with the Duke of York Trophy which he won at Southampton with Mr. Talbot's Miss Rioco III.

At the races last year Mr. Talbot entered Miss Los Angeles I which, however, was much smaller than the new boat and was outclassed by the other boats in the race. If this boat is successful in her final trials at Detroit, it is expected that she will make an attempt to surpass the mile trial record of 93.12 m.p.h. now held by the veteran pilot, Gar Wood.

GAR WOOD BUILDING AERIAL YACHT

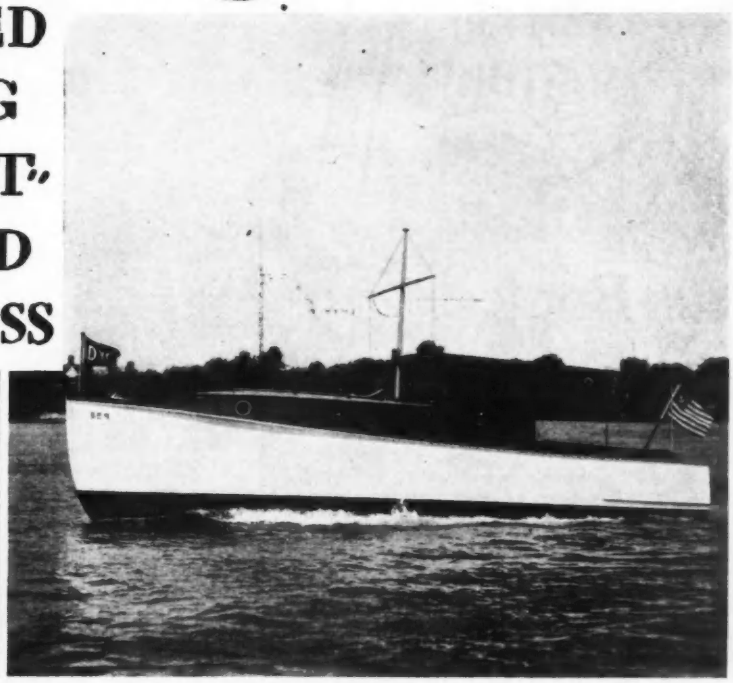
Gar Wood, internationally famous in motor boat racing circles, has placed an order with the Dornier Aircraft Works of Friedrichshafen for a combination airplane and motor boat to cost approximately $175,000. Plans for everything except the engines have been completed and the probability is that the seaplane will be launched some time next June. The body of the plane will be 84 feet long with a beam of 18 feet and four motors developing in the neighborhood of 600 h.p. each will provide a maximum speed of 140 m.p.h. and a normal cruising speed of 120 miles. An after-deck 18 feet in length and 8 feet wide will be used when the ship is in the water. Four staterooms with all the facilities and conveniences of a modern yacht are to be included in the accommodations.

When the ship is delivered Mr. Wood plans first a flying trip around South America, after which he will return to his home at Algonac, Michigan, when the plane will be put into its regular service of carrying the owner back and forth from this point to his summer camp on Georgian Bay, a distance of 224 miles. Mr. Wood believes that the high speed of which the new craft will be capable will enable him to cut the running time between these points from two days to about two hours.

Advertising index will be found on 3rd last page

A MODERN Masterpiece

OF REFINED CRUISING COMFORT, SPEED AND STAUNCHNESS



The Liggett Single Cabin "35"

The LIGGETT "35"

IF YOU are in search of a boat that provides the utmost in yachting enjoyment—economically . . . If you desire roomy comfort and every possible cruising luxury combined with smartness and speed. . . . If you demand a cruiser of staunch, seaworthy proportions, conscientiously built from the best mahogany and oak and wrought by experienced boat builders. . . . You will find the Liggett "35" a modern masterpiece of refined cruising comfort, speed and staunchness. Here is a real sea boat—snug, graceful, dry and fast. It is a quality craft—built and priced for the conservative yachtsman who is concerned with obtaining the utmost value for his money. Nor will the Liggett "35" disappoint you as to its roomy accommodations and facilities. Three distinct models are provided —the single cabin, the double cabin, and the sport cruiser . . . . Each built to spacious proportions . . . . Each serving a practical field of boating usefulness. Powered with the five six-cylinder Kermath models, the Liggett "35's" range from $5475 to $8075. Speeds from 12 to 22 m. p. h.

The Liggett "35" Sport Cruiser

A. G. LIGGETT & SON CO.

WYANDOTTE *Boat Builders for 30 Years* MICHIGAN

This Book—Our Gift to You!

The new Yachtsman's Guide is the only complete, up-to-the-minute yachting encyclopedia published. It contains 500 pages crowded with just the sort of practical information every motor-boat man wants. A copy of this invaluable volume should be aboard every boat and in the library of every yachtsman's home—on hand for immediate reference at all times. The following list gives you merely a partial glimpse of the wealth of material this book contains. Read it—then send for your copy at once!

All about engines—installation, ignition, vaporization and operation.

Hundreds of helpful hints on outfitting and overhauling.

More than 100 Motor Boatmen's Charts for the entire Atlantic Coast, Great Lakes and Canada.

Marine Laws—Rules of the Road at Sea.

What to do if the motor stops unexpectedly.

Times of high and low water and direction and velocity of tides in all ports.

Latitude and Longitude Tables, giving locations of over 1,000 points.

All kinds of marine codes, flags, etc.

Details of hundreds of cruise routes, description of ports and channels, marine signals, codes, flags, etc.

Characteristics of lights, buoys, fog signals, etc.

Numbering Law—How to obtain numbers for your boat.

What to do in a storm—to prevent collisions.

How to organize a yacht club—Constitutions and By-Laws and many other helpful features.

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Grosse Pointe's New Clubhouse

(*Continued from page* 39)

fireplace hangs the striking marine painting by Guy Vining Smith, of Boston, and presented to the club by Commodore John H. French.

Architecture and furniture in the club lounge are in Louis XV style. The main dining room is circular, having fourteen large windows looking out over the lake. Walls and ceiling are in color and design typical of Venice and are set off by an Italian chandelier in leaded red, amber and green glass.

Outside, the loggia, with its massive balustrade and pillars of gray stone, is floored with tan, orange and green tile. The ceiling is vaulted.

With its two magnificent harbors and the open lake at the docks the Grosse Pointe Yacht Club will be active in all aquatic sports. The regatta and swimming championships on the opening days were witnessed by practically all of the two hundred and odd members and their guests. Present officers of the club are as follows:

Commodore, John H. French; vice-commodores, C. Hayward Murphy and Dr. H. N. Torrey; rear-commodore, Charles T. Bush; secretary, Clarence L. Ayers; treasurer, Oscar Webber; board of directors, the officers and Albert A. Albrecht, Charles F. Becker, Arthur H. Buhl, Thomas E. Currie, Fred W. Dalby, C. J. Edwards, George R. Fink, Lawrence P. Fisher, William G. Fitzpatrick, Mark R. Hanna, Edward J. Hickey, John T. Hurley, Harry M. Hewett, Richard P. Joy, Ross W. Judson, Alvan Macauley, William M. Martz, George Osius, Dr. George L. Renaud, Murray W. Sales, Arthur J. Scully, Conrad H. Smith, Charles E. Sorenson, B. F. Stephenson, Walter F. Tant, John H. Tigchon and Harrington E. Walker.

In Tune With the World

(*Continued from page* 48)

listener-in. First of all, there is the broadcast service, which calls for a wave length range of from 200 to 550 meters. Next, there is the marine band, from 600 to 700 meters, and around 2,000 meters, which is highly desirabe if one would keep in touch with shipping. While the traffic is in code, it is not difficult to master enough of the code to decipher call letters. Weather signals, of great value, especially to the small boat owners, are transmitted in this band.

The average medium-sized motor cruiser or small yacht can ill afford the space necessary for the installation of a number of receivers each designed for a special purpose and range. Even if this method were resorted to, it is questionable, in the case of yachts with a considerable cruising range, how much of the time one receiver or the other would be well within the range of one of the stations transmitting the service for which the particular receiver was designed.

Taking all these factors into consideration, there is obvious necessity for a receiver that will overcome these obstacles and not lose any of its potentialities in doing so. Such a receiver must be extremely powerful; it must accomplish on a short aerial what the average broadcast receiver cannot accomplish on a long one. It must be flexible; that is to say, it must be capable of covering all the previously mentioned radio channels from 200 up to 3,000 meters. And it must have an amplifying system beyond reproach, an amplifier that will build up the received signal to the point where it will overcome all noise, ordinary or extraordinary, and build it up with a faithfulness of reproduction that will make dancing on deck or a concert in the salon a pleasure. Incidentally, while accomplishing all this, the receiver should present an exterior of sufficient beauty to harmonize with the appointments of the boat, and not be too suggestive of the experimental laboratory.

The commercial production of a receiver of this kind has been the stumbling block of manufacturers for several years. The builders of receivers of laboratory precision have not been equipped to clothe their receivers in the cabinets of the factory-built console. The large broadcast receiver manufacturer, on the other hand, is equally handicapped. His sets are turned out on a mass production scale and his methods are not suited to the development of highly specialized receivers of this type. Such qualifications can only be attained by the custom-built set maker. Such an organization has to be large enough to work on a big scale, yet give to each individual set the artisan's painstaking care in construction.

With the ideal of meeting just these requirements of the boat owner, the writer has built up an organization that has retained its standards as a custom-set builder, while at the same time

Advertising index will be found on 3rd last page

Again SCRIPPS *wins!*

59 year-old record shattered by 1250 mile run in 87 hours 35 minutes

PATRONS ARE REQUESTED TO FAVOR THE COMPANY BY CRITICISM AND SUGGESTION CONCERNING ITS SERVICE

CLASS OF SERVICE

This is a full-rate Telegram or Cablegram unless its deferred character is indicated by a suitable sign above or preceding the address.

WESTERN UNION

SIGNS

DL = Day Letter
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NEWCOMB CARLTON, PRESIDENT — J. C. WILLEVER, FIRST VICE-PRESIDENT

The filing time as shown in the date line on full-rate telegrams and day letters, and the time of receipt at destination as shown on all messages, is STANDARD TIME.

Received at Corner Congress and Shelby Sts., Detroit, Mich. Above Line 1929 JUL 26 AM 2 35

AA27 44 NL=STLOUIS MO 25

SCRIPPS MOTOR CO=
DETROIT MICH=

BOGIE WINS NEWORLEANS TO STLOUIS RACE AGAINST MARTHA JANE
AND LOWERS FIFTY NINE YEAR RECORD OF THE ROBERT E LEE
150 SCRIPPS MOTOR PERFORMED ONE HUNDRED PERCENT EIGHTY
SEVEN HOURS THIRTY FIVE MINUTES WILL DRIVE HER BACK HOME
TO MEMPHIS WITHOUT A SINGLE ADJUSTMENT=

LOUIS LEROY.

THE QUICKEST, SUREST AND SAFEST WAY TO SEND MONEY IS BY TELEGRAPH OR CABLE

Speed Boat Bogie Beats the Record of the Robert E. Lee,

St. Louis, Mo., July 25.—(U. P.)—A 59-year-old Mississippi river record of 90 hours and 21 minutes for the run from New Orleans to St. Louis, established by the packet Robert E. Lee, was shattered here today by the Bogie, midget speed boat owned by Dr. Louis Leroy, Memphis sportsman.

The Bogie, which left New Orleans last Sunday at 3:05 p. m. docked at the foot of Olive street here at 6:45 a. m. today, completing the 1,200-mile treacherous run in 87 hours 30 minutes elapsed time, beating the record of the Robert E. Lee.

While the Bogie and the Martha Jane started out at scratch last Sunday, the smaller and successful craft immediately shot into a lead it never relinquished. Less than 24 hours after the race began the Martha Jane developed motor trouble and had to quit.

SPORTSMEN who delight in contests which try their staying qualities recognize in SCRIPPS a motor whose power of endurance is unequalled save by their own.

The 150 H. P. SCRIPPS motor in Dr. Leroy's speed boat Bogie had passed through three seasons of arduous service before being subjected to this gruelling test of better than three and one half days continuous and racking full speed operation.

Let your next motor be a SCRIPPS.

Ten models—15 to 200 Horse Power. High speed and medium duty—32 page illustrated catalog on request.

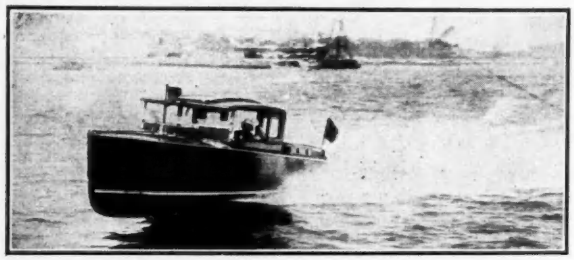
P. & A. PHOTO

SCRIPPS MOTOR COMPANY, 5819 LINCOLN AVE., DETROIT, MICHIGAN

SCRIPPS

THE MOTOR THAT CROSSED THE ATLANTIC

BABY GAR SEDAN, *designed and built by* GAR WOOD, INC.
Exides are an important part of her equipment.



PLANING AT TOP SPEED

. . . or Loafing Along

Your Exide Battery gives the same dependable service

WHETHER you're shooting along at high speed . . . or just idling up to the pier . . . it makes no difference to Exide Marine Batteries. They are always on the job . . . always ready to give steady, economical, *dependable* service. See the nearest Exide representative before buying your next batteries.

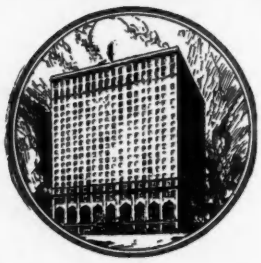
Exide

MARINE

BATTERIES

The Electric Storage Battery Company, Philadelphia

Exide Batteries of Canada, Ltd., Toronto



In Detroit . . . the

Detroit-Leland Hotel

Seldom, if ever, has any hotel enjoyed such success as the new Detroit-Leland Hotel.

And today the Detroit-Leland enjoys a local, national and international reputation which places it among the world's foremost exclusive hotels.

700 Large Rooms with Bath

85% are priced from $3.00 to $5.00

DETROIT-LELAND HOTEL

Bagley at Cass

WM. J. CHITTENDEN, JR., *Managing Director*

Direction

BOWMAN MANAGEMENT

In Tune With the World

(*Continued from page* 104)

working along very definite lines, following the most advanced practices of the research laboratory and having them conform to the requirements previously outlined, while producing sets one by one as ordered.

The organization in question has experimented with innumerable circuits, testing and rejecting until it has found what is believed to be the most powerful and the most flexible receiver possible for all purposes. This receiver has been named Silver Ghost, and it is now about to make its debut aboard motor boats and cruisers, just as it has already appeared in many homes.

The Silver Ghost is a nine-tube receiver incorporating four stages of tuned, screen-grid radio-frequency amplification, with a 200A detector, two stages of 240 or high-mu audio amplification, and a power stage with two power tubes. The tremendous power of this receiver permits its use with any kind of antenna, from a few feet up to 500 or 600 feet, the results being uniformly fine. Complete shielding of the delicate components is, of course, essential. To achieve this, the makers have enclosed each stage of radio frequency amplification and the detector in individual aluminum cabinets. The five tuning controls of the five units are coupled together by universal joints, thus arranging the receiver for single dial operation in spite of its size. The tuning coils of the Silver Ghost are of the plug-in type. Simply by inserting the desired set of coils, the receiver may be made to respond over a range of from 200 to 3000 meters. This covers every type of entertainment and marine radio transmission, making this an ideal receiver for those on water. The Silver Ghost's value as a marine set has been demonstrated by its use at the present time on board nine U. S. battleships and destroyers.

The audio-frequency end of the Silver Ghost is in keeping with the rest of the set. A push-pull amplifier, using two 250 type tubes, is employed, giving approximately seven times the amplification of the average audio amplifier, when 110-volt AC operation is feasible. Otherwise two 171-A tubes are employed for better operation. This, in conjunction with a dynamic loud-speaker, completes what is believed to be the most powerful all-around receiver in the world.

Here in the United States the Silver Ghost has a daylight reception range of 1,000 miles on the loud-speaker. The evening range is practically without limit, with coast-to-coast reception as the usual thing, while the reception of European broadcasting stations is an everyday matter. Owners of this set in Malaga, Barcelona and San Sebastian, Spain, report the reception of everything from American broadcasting in the West, to Australian stations in the East. Other owners in Sydney, Rio de Janeira, Honduras, France and Alaska report the reception of everything in the world, from ship code from the Seven Seas to the broadcasting from the Eifel Tower.

Needless to say, the builders have been extremely gratified by these results. They have striven to make the Silver Ghost not only a thing of power, but of beauty as well. To this end the set has been encased in satin-finish aluminum units, and these units, in turn, are placed in a solid walnut console. For those preferring the set as a table model, the units are available in several finishes ranging from gunmetal to satin-finish aluminum, mock walnut, marble, and so on.

The application of a receiver of this kind on a small yacht may well be imagined. During certain periods of the day the 600 meter coils may be plugged in and maritime press news, storm warnings and messages tuned in. The 200 to 560 meter coils may be substituted and the broadcast programs of the entire United States may be had for amusement, deck dancing, and so on. When an added fillip is desired, the long-wave coils make available the broadcasting of European stations. And for the short-wave fan, a supplementary short-wave unit may be plugged in and the short-wave programs of the world received on and from 15 to 200 meters. As previously mentioned, the aerial length is immaterial, a few feet of wire being sufficient.

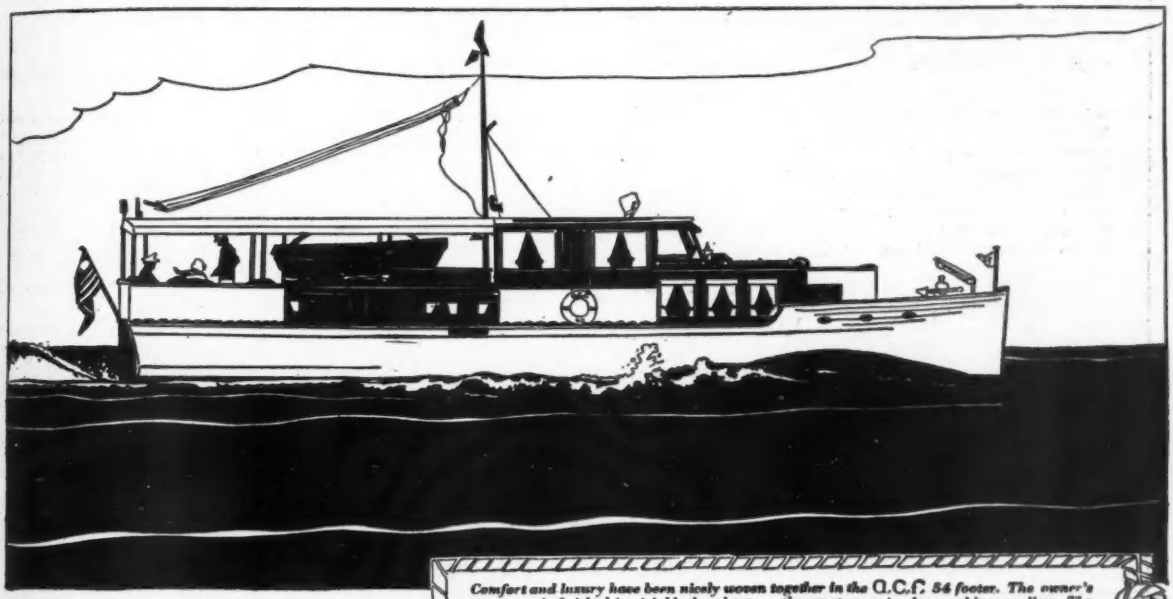
The Silver Ghost in complete form also includes an electrical phonograph pick-up, with turn table, so that the usual phonograph records may be played with marvelous volume and realistic tone quality. This feature means endless entertainment for those on board the ship, particularly since it offers a wide choice of musical selections. Because of the exceptional power amplifiers, the phonograph rendition is far in advance of the usual home phonographs.

With a boat equipped with an installation of this kind, man still remains a bobbing cork on the limitless sea, but he is a quite at home cork, and a very much more confident one than Christopher Columbus was when he inadvertently pulled the trigger and discovered America.

Advertising index will be found on 3rd last page

When you're looking at a boat, ask first, "Who built it?" For it is the experience of a seasoned builder, even more than good materials, that builds good boats : . . salty experience, gained only with time! : : : Q.C.F. has been building boats for nearly

"Who built it?"



Comfort and luxury have been nicely woven together in the Q.C.F. 54 footer. The owner's stateroom is finished in rich black walnut . . . the guest room in cheery white paneling. The bathroom has a tub as well as a shower. There's a galley roomy enough to satisfy any cook. The spacious quarter deck carries deep, easy chairs. But for all her luxury, the Q. C. F. 54 is a boat throughout every inch! Power is supplied by two Hall-Scott engines . . . than which there is no more dependable power!

a hundred years, gathering during each of them more sureness, more soundness, more *experience.* : : : Take the Q.C.F. 54 foot cruiser, for example. Only complete mastery of the whole of it . . . from designer's board to the completed craft . . . can turn out such a boat. Q.C.F. has put everything it has into this boat—marine experience, years of an infinite variety of manufacturing, an ability to purchase well and economically. : : : In this 54 footer, you'll find seaworthiness, sturdiness and dependability . . . and a real "put-your-finger-on-it" value for every dollar you put into your boat. And you'll find these things in every boat Q.C.F. builds!

Q.C.F.

Q.C.F. NEW YORK MARINE SALON • 217 West 57th St., bet. 7th Ave. and Broadway

See the Q.C.F. fleet for yourself at any of these showrooms—
or write for detailed descriptions and prices:

BOSTON — Noyes Marine Sales Co. . . . 305 Congress Street
DETROIT — Q.C.F. Marine Salon, 500 East Jefferson Avenue
CLEVELAND — The Yacht Sales & Service, Inc., 18123 Detroit Ave.
SAN FRANCISCO — S. C. Kyle . . . 427 Rialto Building
CHICAGO — Ward A. Robinson, 8 South Michigan Avenue
WILMINGTON, DEL. — American Car and Foundry Company.

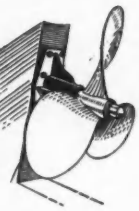
The Q.C.F. Fleet: 27 ft. Cruiser-runabout • 30 ft. Cruiser • 40 ft. Cruiser • 47 ft. Cruiser • 54 ft. Cruiser • 68 ft. Motor Yacht

AMERICAN CAR AND FOUNDRY COMPANY

The Hathaway

RESILIENT

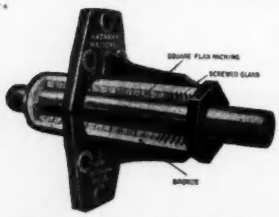
Flax Packed Stern Bearing



The Hathaway record of exceptional performance is more important to you than a page of claims.

The fact that the Hathaway Flax Packed Stern Bearing does render service of an outstanding nature is proved conclusively by irrefutable records, over a period of fifteen years.

Experiments are almost invariably expensive. Why invite trouble and unnecessary expense? When you install a Hathaway, your stern bearing troubles vanish. You reap the benefit of our years and years of experiment and test.



Vibrationless

Quiet Running

Long Life

Economical

Trouble-Proof

Write for illustrated, descriptive literature

HATHAWAY MACHINERY CO.

NEW BEDFORD, MASS.

There are over

1000

Hill Diesel Engines in use in Continental

EUROPE

in almost every conceivable class of power service from stone quarries to silk mills and from palatial yachts to canal barges.

This has been going on over a period of six years, so it is not just a flash in the pan.

WHY?

EUROPE KNOWS HER DIESELS!

Let Us Tell You All About It

HILL DIESEL ENGINE CO.

LANSING, MICHIGAN

Since 1899

Newport Races Thrill Thousands

(*Continued from page* 45)

The Express Cruiser Handicap race, consisted of two heats of 20 miles each. On the first day there were only three starters in the race, Avalon owned by Albert Shea, Scandalmonger owned by Honorable Slater Washburn and Corsair Crusader entered by Frank Wigglesworth. The boats finished in the order mentioned. In the second day's event, additional starters were Llenroc II owned by H. M. Lewis, Sterling owned by R. B. Webber and Kitty owned by Gordon Lippitt. In this second heat, Llenroc II finished in first position, Sterling in second and Scandalmonger in third position. Corsair Crusader came in fourth, Avalon fifth and Kitty did not finish. In the final scoring, which was based on the two heats, Scandalmonger was declared the winner.

In the Ladies Handicap race for the Mrs. Vincent Astor Trophy, there were 12 starters. This race consisted of three heats of 2½ miles each, with the handicaps based on the best lap. Mrs. Bernard Smith driving a Chriscraft finished in first position in handicap time, as well as in actual performance. Dart driven by Mrs. Charles Krim finished in second position on handicap time and eighth in actual performance. Chaslea entered by Charles F. Thatcher took third place. Mrs. Arthur J. Utz, the winner of the Mrs. Vincent Astor Trophy a year ago, finished in fourth position, only one second behind the winner of third place, on handicap time.

Al Buffinton, driving a Cute craft. Several competed and were successful in Classes A and B

In the Free For All, for displacement boats and hydroplanes, Carenaught, owned by C. Roy Keys and driven by Milton Elliott took both 7 mile heats but was only one second ahead in each heat of Curtiss-Wilgold III with the owner C. Roy Keys at the helm. These boats ran practically side by side the entire distance and gave the crowd the greatest thrill of the regatta.

In Class A, Division 1 outboards, the winner of both 2½ mile heats was W. V. Hayes of Newport driving a Lockwood powered Cute Craft. In Division 2, Class A, Arthur Sutherland finished in first position in both heats.

In Class B, Division 1, Green Flash, a Johnson powered Cute Craft driven by Harold Bowen of Fall River, finished in first place in both heats and in Division 2, Class B, the same boat driven by Wilder Darling with a Class B Johnson motor finished first in both heats.

In Class C, Division 2 outboard race, consisting of two 5 mile heats, Baby Whale, powered with an Evinrude motor and driven by Commodore Ross Maddocks, finished first in both heats, and in Class D, Division 2, which also consisted of two heats of 5 miles each, Cee Stepper, a Penn Yan boat with a Johnson Class D motor, driven by L. E. Preston finished first in the first heat and second on the second heat. Ned Lassone driving a Pigeon boat finished first in the second heat but as this boat was third in the first heat, his final position was second.

In Class E, Division 2 which consisted of one heat of 5 miles, Ned Lassone driving his Three Star Pigeon boat took first position with a Johnson motor and Lookinback Pirate, driven by Dick Kerr, a Bossert boat with a Johnson motor, took second place.

In the Outboard Free for All, Division 3 race, which consisted of one 7½ mile heat, Ross Maddocks driving his Baby Whale, with a Johnson Class D motor took first place with Ned Lassone in his Pigeon boat second.

A complete summary of all classes follows on pages 110, 112 and 114.

(*Continued on page* 110)

Advertising index will be found on 3rd last page

Safety with Speed and *Comfort*

Model 16 banks at speed in good shape on short curves

SAFETY may not be important to you—perhaps you've never had anything happen to you—yet.

But "Safety" is a great word anytime Old Man Trouble looks you in the eye.

The Outboard Sea Sleds have acquired a reputation for being just about "fool proof".

Displacement and beam are distributed over a longer water line than for ordinary craft of the size.
Safety here means stability.

Model 13 is the safest fast craft for youngsters yet designed

The hollow bow sends bow waves under the hull. A Sea Sled doesn't stick her nose under.
Safety here means seaworthiness.

The greatest draft is at the sides.
Safety here means she doesn't roll.

The inverted V bottom gives lessened skin friction and freedom from pounding.
This means speed and comfort.

Regrettably, many dealers were overstocked with outboards last season.

Almost none were over-stocked with Sea Sleds.

TRADE-MARK REG. **SEA SLED** U. S. PAT. OFFICE

THE SEA SLED CORPORATION

Sole Licensee under Hickman U. S. Patents

226-228 Fourth Ave. at 19th St., New York

Yards at W. Mystic and Groton, Conn.

HIGHEST FACTOR OF SAFETY **SEA SLED** OF ANY CRAFT OF THE SIZE

SPEED · · WITH COMFORT AND · · SAFETY

MARBLEHEAD
ANTI-FOULING
GREEN
BOTTOM PAINT
"We are pleased to recommend this preparation as representing the highest grade product that can be used."
—JOHN H. WELLS, Inc.
"We have used Marblehead Anti-Fouling Bottom Paint for nearly fifty-five years on practically all of our yachts and the fact that we continue to use and specify it wherever possible is proof that we are satisfied with the results obtained from this remarkable paint."
—HENRY J. GIELOW, Inc.
"We have been unable to find anything that will stand up as your paint does under all conditions."
—GEO. LAWLEY & SON CORP'N
STEARNS-McKAY MFG. CO.
Marblehead, Mass., U. S. A.

YOU DON'T HAVE TO BE A TRAIN DISPATCHER TO KNOW WHAT CONTINUOUS SERVICE MEANS

You need only know what you should expect of a reverse gear, what it should do to give you satisfaction—*not trouble.*

CONTINUOUS SERVICE—means a reverse gear that functions satisfactorily under all service conditions—that is big enough to pass all the power your engine has—that has a ruggedness of construction that acts as a reserve in emergency stresses and strains—

and A HIGH SPEED REVERSE

Four different enclosed type sizes

The "90" line PARAGON

"There are no trick parts to a PARAGON"

PARAGON GEAR WORKS 408 CUSHMAN ST. TAUNTON, MASS.

Newport Regatta—Summary

(*Continued from page* 108)

Stock Runabouts, Over 18 ft.—Under 82 H.P.

1. Temptress—Douglas H. Paton.
2. Motor Craft—Mr. Dyer.
3. Skipalong II—J. T. O'Connell.

Stock Runabouts, Over 21 ft.—Under 125 H.P.

1. Chris Craft—H. Smith.
2. Sheldrake—W. J. H. Dyer.
3. Dart—Frank Wigglesworth.
4. Dart—G. P. Merchant.
5. Skipalong—J. T. O'Connell.
6. Temptress—D. H. Paton.

Stock Runabouts, 25 ft.—Not Over 150 H.P.

1. Miss Gray Gables—A. H. Waitt.
2. Chris Craft—B. Smith.
3. Dart No. 2—Frank Wigglesworth.
4. Skipalong—J. T. O'Connell.

Stock Runabouts, Not Under 25 ft.—Not Over 200 H.P.

1. Chris Craft—Charles Smith.
2. Betty—Lou Pierce.
3. Miss Gray Gables—A. H. Waitt.
4. Baby Gar—Mrs. A. J. Utz.
5. Dodge—Lou Savage.
6. Chris Craft—Bernard Smith.
7. Dolphin—Walter Moreton.
8. Sea Lyon—Howard Lyon.
9. Sea Lyon—Don Tuttle.
10. Gar Wood—H. A. Prew.
11. Nanumett II—L. L. Elden.
12. Benzai—A. Thomson, Jr.

Stock Runabouts, Not Under 25 ft.—Not Over 250 H.P.

1. Betty—Lou Pierce.
2. Chris Craft—H. Smith.
3. Chris Craft—G. W. Morse.
4. Chris Craft—Chas. Smith.
5. Temptress—R. A. Fritz.
6. Miss Gray Gables—A. H. Waitt.
7. Chris Craft—Noyes Marine Sales.
8. Sea Lyon—H. W. Lyon.
9. Dolphin—W. H. Moreton.
10. Chaslena—Chas. F. Thatcher.
11. Baby Gar—Mrs. A. J. Utz.
12. Gar Wood—H. A. Prew.

Stock Runabouts, Not Under 27 ft.—Not Over 250 H.P.

1. Chris Craft—Jonathan Brown.
2. Betty—L. D. Pierce.
3. Benzai—Alex Thomson, Jr.
4. Baby Gar—Mrs. A. J. Utz.
5. Dolphin—W. H. Moreton.
6. Sea Lyon—H. W. Lyon.
7. Chaslena—C. F. Thatcher.
8. Sea Lyon—H. W. Lyon.

Displacement Free-for-All

1. Curtiss Wilgold III—C. Roy Keys.
2. Chris Craft—Ham. Smith.
3. Betty—Lou Pierce.
4. Temptress—R. A. Fritz.
5. Carenaught—M. Elliot.
6. Chris Craft—Noyes Marine Sales.
7. Chaslena—Mrs. Charles Thatcher.
8. Chris Craft—Noyes Marine Sales.

Express Cruisers

1. Scandalmonger—Slater Washburn.
2. Avalon—Albert Shea.
3. Corsair Crusader—Frank Wigglesworth.
4. Llenroc II—H. M. Lewis.
5. Sterling I—R. B. Webber.
6. Kitty—Gordon Lippett.

Ladies' Handicap (Astor Trophy

1. Chris Craft—Mrs. B. Smith.
2. Dart—Mrs. Krim.
3. Chaslena—Mrs. C. F. Thatcher.
4. Baby Gar—Msr. A. J. Uutz.
5. Skipalong 2—Mrs. J. T. O'Connell.
6. Dart—Mrs. Frank Hickey.
7. Motorcraft—Mrs. Dyer.
8. Skidaway—Mrs. I. R. Sheldon.
9. Miss Gray Gables—A. H. Waitt.
10. Sheldrake—W. Howland.
11. Dart—Mrs. Merchant.
12. Dodge—Mrs. Wallace.

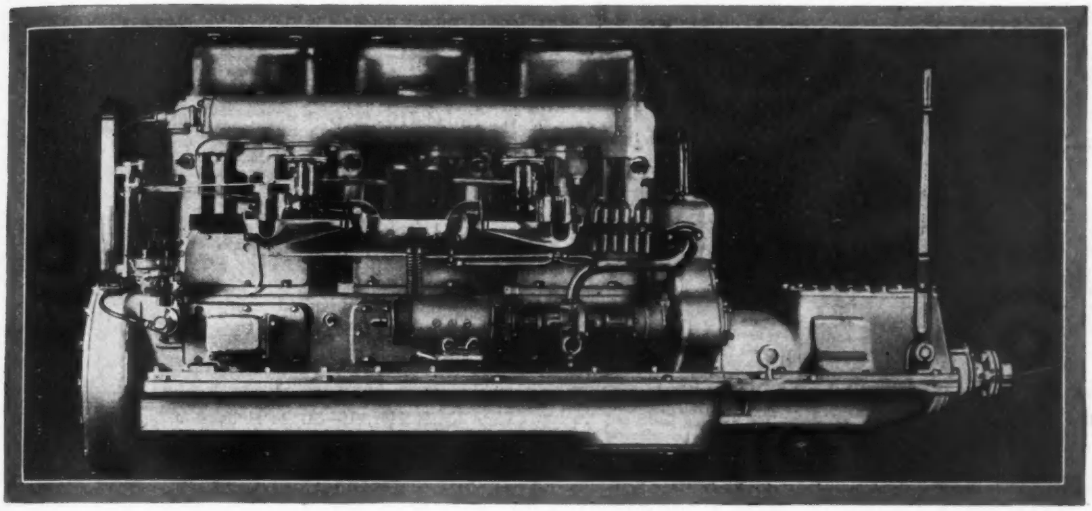
Class A—Division 1

1. Hayes—W. V. Hayes.
2. B-27—J. N. Sullivan.
3. D-92—R. Parlin.

(*Continued on page* 112)

Advertising index will be found on 3rd last page

AMERICA'S LEADING MARINE ENGINE



Buffalo Dreadnaught

200 H. P. SIX CYLINDERS

5 7/8 In. Bore
7 In. Stroke

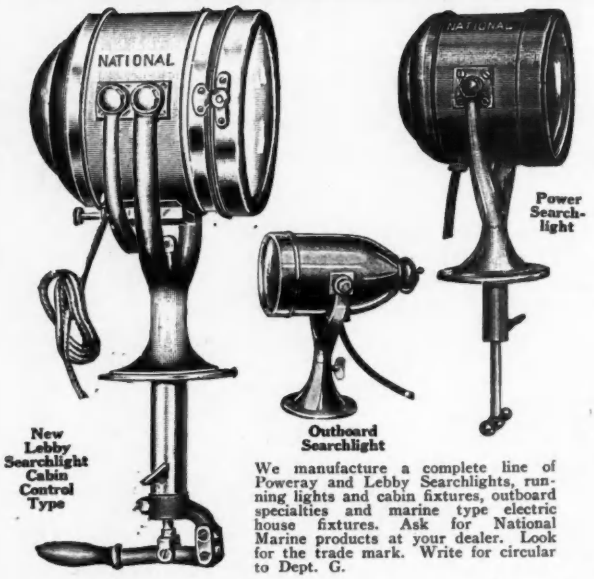
Four Cylinder 125 H.P.

Eight Cylinder 240 H.P.

Buffalo Gasolene Motor Company

1274-1286 Niagara Street
BUFFALO, N. Y.

347 Madison Avenue
NEW YORK CITY



We manufacture a complete line of Poweray and Lebby Searchlights, running lights and cabin fixtures, outboard specialties and marine type electric house fixtures. Ask for National Marine products at your dealer. Look for the trade mark. Write for circular to Dept. G.

The NATIONAL MARINE LAMP COMPANY

FORESTVILLE, CONN., U. S. A.

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HERE'S A SIZE TO MEET YOUR NEEDS

From the long line of Universal Lighting Plants you can select the size best suited to meet your requirements. And regardless of which size you need, you can be assured of quiet, vibrationless performance and smooth, unflickering current. Compact, perfectly synchronized, easily serviced, and absolutely dependable, Universals have proved their superiority through long years of service. Universal service facilities at virtually every large port.

UNIVERSAL MOTOR CO., Dept. MBG-9, Oshkosh, Wis.
NOT CONNECTED WITH ANY OTHER FIRM USING THE NAME "UNIVERSAL"

U N I V E R S A L

ELECTRIC PLANTS

1½ • 2½ • 4 • 7½ • 10 • 12½ KW

Newport Regatta—Summary

(*Continued from page* 110)

Class A—Division 2

1. B-2—Arthur Sutherland.
2. Misfire IV—E. V. Howe.
3. B-100—Douglas Haskins.
4. D-15—H. Christ.
5. Hi-Hat—Slater Washburn.

Class B—Division 1

1. Green Flash—Harold Bowen.
2. D-42—Earl Thomas.
3. Pirate Chief.
4. Kale—A. G. Henrickson.
5. B-27—James N. Sullivan.
6. Whirlwind III—C. G. Padala.
7. Miss Wollaston—Carl Huerth.
8. Flapper II—H. B. Joy, Jr.
9. Zev I—Mrs. Frank T. Hickey.
10. Tee Ta—N. W. Kalat.

Class B—Division 2

1. Green Flash—Wilder Darling.
2. Zev III—Russell Stearns.
3. Hooton—Doug. Haskins.
4. Baby Whale—Dick Knight.
5. Baby Whale—Frank Blaney.
6. Pirate Chief—Dick Kerr.
7. Bullet—Ned Lassone.
8. Baby Whale—Frank Meyers.
9. Warmananxious—Arthur Sutherland.
10. Cute Craft Herself—A. T. Buffington.
11. D—15.
12. Kale—A. G. Henricksen.
13. Irininon Board—Carl Mason.
14. Dan 2—C. W. Miller.

Class C—Division 2

1. Baby Whale—Ross Maddocks.
2. Hooton—Doug. Haskins.
3. Sallrite II—G. L. Moore.
4. Zev—Russ Stearns.
5. Bossert—L. Bossert.
6. Witchcraft—C. A. Johnson.
7. Bullet—Nedd Lassone.
8. Missfire VI—E. V. Howe.
9. Dan 2—C. W. Miller.
10. Cute Craft Herself—A. Buffington.
11. Pirate Kid 2.
12. Baby Whale—G. L. Moore.

Class D—Division 2

1. Cee Stepper—L. E. Preston.
2. Pigeon—Ned Lassone.
3. Baby Whale—Frank Blaney.
4. Lookinback Pirate—Dick Kerr.
5. Flash—Jake Dunnell.
6. Hooton—Doug. Haskins.
7. Cee Stepper—
8. Missfire—E. V. Howe.
9. Baby Whale—Ross Maddocks.
10. Blue Pigeon—Capt. Snaedecke.
11. Mullins—S. Titcomb.
12. Baby Whale—Frank Meyers.

Class E—Division 2

1. Pigeon 3 Star—Ned Lassone.
2. Lookinback Pirate—Dick Kerr.
3. Baby Whale—Frank Blaney.
4. Flash—Jake Dunnell.
5. Baby Whale—Frank Meyers.

Grand Free-forAll (Outboards)

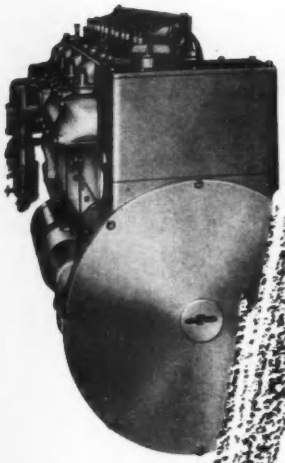
1. Baby Whale—Ross Maddocks.
2. Pigeon—Ned Lassone.
3. Luckinback Pirate—Dick Kerr.
4. Baby Whale—Frank Blaney.
5. Cute Craft—A. T. Buffington.
6. Cee Stepper—
7. Pigeon—

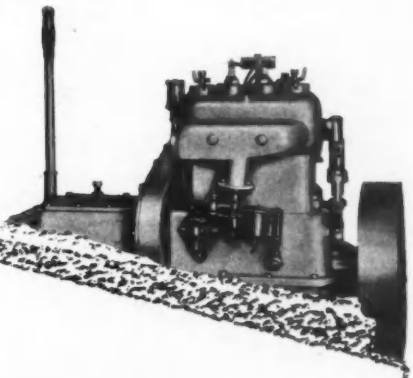
Family Outboards—3 Seats—2 Passengers

1. Seahorse—A. T. Buffington.
2. B-76—
3. Baby Whale—G. L. Moore.
4. B-87—Richard Emerson.

(*Continued on page* 114)

Advertising index will be found on 3rd last page





Announcement

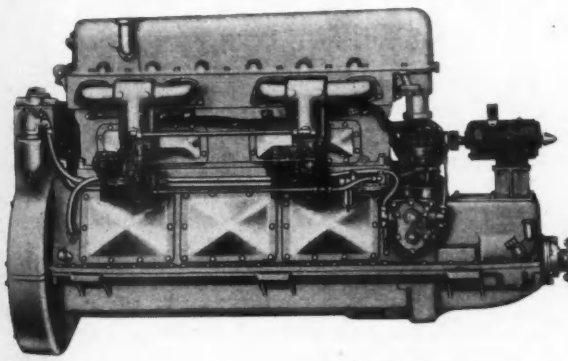
The Kermath Manufacturing Company take pleasure in announcing the appointment of the

Walter H. Moreton Corporation

1043 Commonwealth Avenue
Boston, Massachusetts

as distributors of Kermath Marine Engines, Parts and Service for the entire State of Massachusetts

A complete showing of all Kermath models, including the two-cylinder, four-cylinder light, four-cylinder heavy and the complete range of six-cylinder motors will be found available for inspection in their show rooms

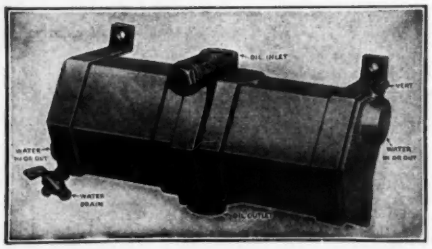


KERMATH

Here's what the Buda Company says—

". . . the use of your oil cooler on our marine engines is of inestimable value and we highly recommend their use on all marine engines."

GROSS MECHANICAL LABORATORIES
Baltimore **Maryland**



GROCO
REGISTERED U.S. PATENT OFFICE
OIL COOLERS

In the Marine field there are more Groco Oil Coolers sold than all the rest combined.

DUNPHY BOATS

Sand Dab: Length 18'6", beam 6 ft. Draft 11", Seating capacity six persons, speed 15 to 22 miles per hour. Priced from $1250 to $1495.

21-Ft. De Luxe: Seating capacity six passengers, mahogany planked, six or eight cylinder motor. Speed 30 to 38 miles per hour. Priced from $1950 to $2350.

Aqua Flyer Jr.: Length 16 ft., beam 50", speed 18 to 32 miles per hour. Price $190 without motor.

Complete line of motor boats, outboard motor boas, hydroplanes and row bonts carried in stock ready for immediate shipment. *Write for catalog.* Dept. M. A.

DUNPHY BOAT MFG. CO.
DEPT. MBG-9 **EAU CLAIRE, WIS.**

Newport Regatta—Summary

(*Continued from page* 112)

Ladies' Races—Not Under 25 ft.—Not Over 150 H.P.

1. Miss Gray Gables—Mrs. A. J. Utz.
2. Dart—Mrs. Krim.

Junior Outboards for Boys and Girls 13 to 16 Years of Age

1. Hayee—W. V. Hayes.
2. White Streak—R. W. Parlin.
3. Miss Wollaston—Carl Huerth.

Grand Free-for-All

1. Carenaught—M. Elliott.
2. Curtis Wilgold III—C. R. Keys.
3. Chris Craft—H. Smith.
4. Betty—Lou Pierce.
5. Chris Craft—Noyes Marine Sales Co.
6. Chaslena—Chas. F. Thatcher.
7. Chris Craft—J. Brown.

U. S. Navy Gigs

1. War College.
2. U. S. S. Wright.

Whaleboats—Free-for-All

1. Wright.
2. Torpedo Station.
3. New York.

Ralph Kingsley, sixteen years with the Elco works, leaves them to join the Cox & Stevens organization and will specialize in the yacht brokerage department

CHRIS-CRAFT FULLY DESCRIBED

Any person interested in the purchase of a boat of the runabout or commuter type should not fail to secure a copy of the new catalog illustrating the entire Chris-Craft line. The booklet itself is really a work of art, in good keeping with the high quality of the craft it represents. The complete line of eighteen different models is fully described and illustrated, showing a range of boats between 22 and 38 feet in length and from 30 to 45 miles per hour in speed for the purchaser to select from. Numerous illustrations are included which give an accurate idea of production methods in the modern and well equipped plant, and a page is devoted to complete specifications on construction, equipment, motor measurements, etc. The Chris-Craft line, long famous for its standards of craftsmanship, includes both open and sedan type runabouts, commuters and commuting cruisers.

Advertising index will be found on 3rd last page

The Dodge Boat Works Use Lycoming 8-In-Line Marine Engines as Standard in Their 26-Foot Runabout

Nothing *Finer* Can Be Said of Any Motor Boat Than, It is -

LYCOMING MOTORS

LYCOMING MANUFACTURING CO.
WILLIAMSPORT, PENNSYLVANIA

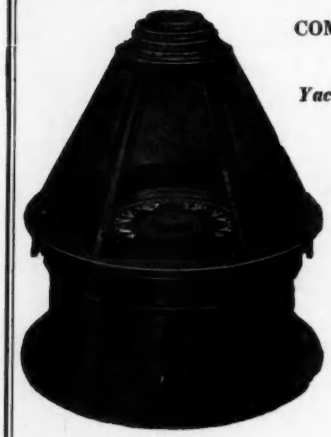
Lycoming Marine Engines are also Available to the Retail Trade

Kelvin & Wilfrid O. White Co.

112 STATE ST.
Boston

★

38 Water Street
New York City



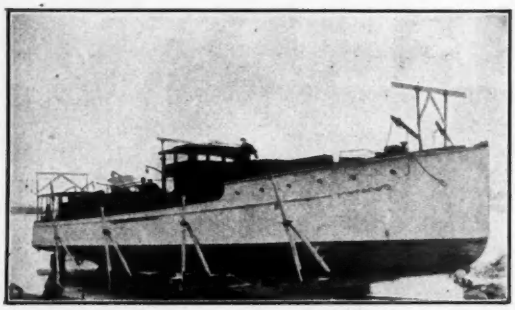
COMPASS EQUIPMENT
for
Yachts and Motor Boats

Made in our own factory in Boston to suit all sizes and types of boats. An absolute guarantee goes with all our instruments.

Marine Glasses of all types, Ship Bell Clocks, Barometers, Barographs, Sextants, Chronometers. Everything for navigation. Special agents for the Walker Ship and Yacht Taffrail Logs.

Send for circulars

Agents for COAST SURVEY and Hydrographic Office Publications



Efficient Railway Equipment

is a vital factor in the successful operation of any boat yard. Is yours entirely adequate for your present and future requirements?

As Agents for
THE CRANDALL ENGINEERING CO. OF BOSTON, MASS.

we should be glad to tell you about the new CRANDALL STANDARDIZED YACHT RAILWAY, or quote you our material for new installation, replacements and repairs.

W. & J. TIEBOUT
NEW YORK
118 CHAMBERS ST.

MARINE HARDWARE AND EQUIPMENT
118 CHAMBERS STREET

WINGS OVER WATER

Out the office door the busy magnate flees, across Forty-second Street to the East River. Lying at the dock is a comfortable motorboat into which he steps. Promptly at five-fifteen the pilot steps on the starter. In thirteen minutes the boat has sped up the busy water-way, and is at rest again at the New York Air Terminals. It is but a step from the speedy boat to the waiting plane, and the busy business man has cut a few hours from the time he used to waste in travel.

The New York Air Terminals, Inc., is perhaps the largest marine air base for commercial use in the United States. It is located at North Beach, Long Island, just above the famous Hell Gate Channel. It is the Metropolitan base for the New York to Albany and New York to Atlantic City scheduled air routes, and one of the busiest taxi ports in the world.

Capt. Thomas King, formerly of the U. S. Naval Air Forces, is Operation Officer of this huge port. "We are here to save time in transportation," Captain King said. "The New Yorker is willing to pay for his time. On the day of the last Harvard-Yale Regatta at New London, for example, an even 75 airplanes left this port for the races, not including our regularly scheduled liners and unscheduled trips for other points.

"One of our problems was transportation from Manhattan to our air ports. To go from Manhattan to North Beach by land meant a long trip around Long Island that would take as long as the time saved by the plane. We had to use boats, and we tried a number before we adopted the Dodge 30-foot runabout. A number of boats we have tried out failed to stand the rough usage of constant service between North Beach and Forty-second Street, through the turbulent waters of Hell Gate. We make the trip regularly, in all sorts of weather, in thirteen minutes flat. Our boat is in operation continuously from nine o'clock in the morning until seven o'clock at night."

Primarily built for pleasure, the heritage of speed which every Dodge boat has, brings new uses for these dependable craft each day. The airplane is fast and mobile—but no less than the railways, airplane lines need auxiliary conveyances. The taxicab of the marine airport must be a motorboat. With no traffic to glut the water-ways, speed is important—and the thirty-foot Dodge Runabout, used by the New York Air Terminals, Inc., has speed. It is a direct descendant of the famous runabout Horace, which has for years held the reputation of being one of the fastest as well as one of the most palatial stock runabouts afloat. Equipped with a 500 horse power motor, Horace will develop speeds up to sixty miles an hour.

The modern motorboat, no less than the airplanes, is luxurious. The Dodge Runabout is luxuriously equipped. Automobile controls and steering, self-starter and instrument board—all are so much like those of the finest motor cars, that any amateur may step into the fleetest of Dodge Boats, and in an instant, with nothing to learn, no instructions to listen to, can be speeding along the water.

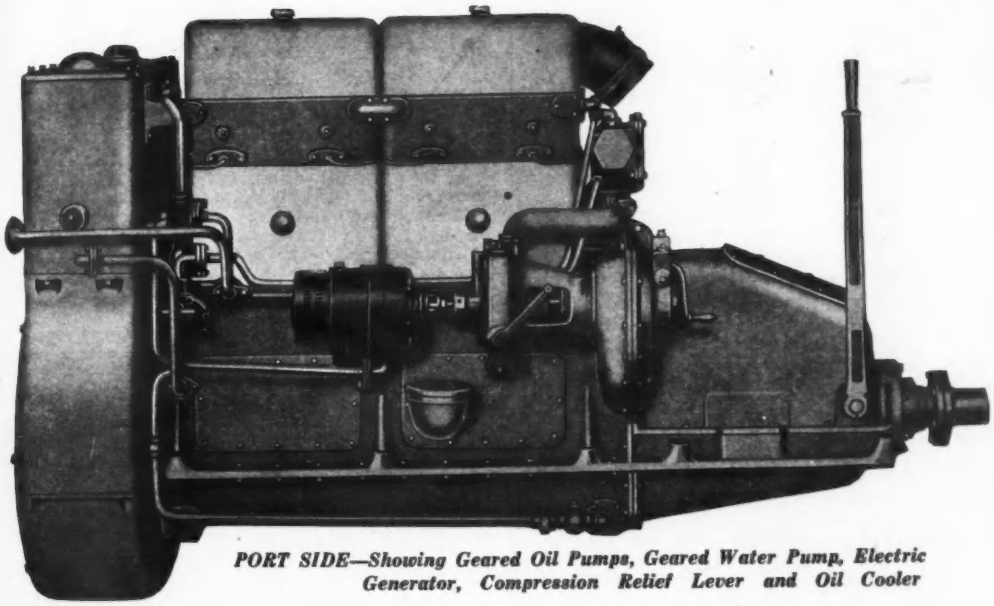
Yet even speed and luxury are not enough for the modern owner of a speedy boat. He demands sea-worthiness. Here is one example of sea-worthiness. Regularly through a channel which was once the bugaboo of experienced pilots—and named by them Hell Gate—a Dodge Runabout speeds. Choppy seas, head winds, tides and cross winds mean no more to this sturdy craft than a rainstorm means to a well built sedan or limousine.

Mahogany—the aristocrat of woods—is the only planking used in any Dodge Boat. It is riveted with non-corroding brass and copper to white oak keel, stem and frame. Chromium plated hardware on all Dodge Boats prevents that bugbear of the old salt—corroded brass. The veteran's prejudice against glass on boats has now been overcome by the use of non-shatterable glass that is kept spray-free by an automatic windshield wiper.

Even the small Dodge Boats live up to the exacting requirements of the larger runabouts. The little twenty-foot sportster is made with nothing but mahogany in planking and hatch covers, decking and interior. It sometimes breaks the heart of the expert wood workmen to cover the beautifully grained and gorgeous wood with paint—but modern modes demand color, and the sport models come in any of the brighter, modern colors laid on the mahogany itself.

America is air-minded today—and water-minded too. Wings over water demand auxiliaries that are dependable, and nearly as fleet as the flying monsters our age has brought forth. Founded in a tradition as old as the motor itself, Dodge Boats serve the passengers of airplanes in their journey from air to land just as faithfully as Dodge has served on land for two decades of motor history.

Advertising index will be found on 3rd last page



PORT SIDE—Showing Geared Oil Pumps, Geared Water Pump, Electric Generator, Compression Relief Lever and Oil Cooler

BUDA — M. A. N. MARINE DIESEL

High Speed-Light Weight

The Buda-M. A. N. Marine Diesel engine represents the latest development in light-weight, high speed Diesel engines for Marine service. It is backed by thirty years experience of the M. A. N. Company of Germany, and the twenty years engine building experience of The Buda Company.

This engine is a compressor-less, solid injection, four-stroke-cycle type—with small space requirements and low fuel consumption. It is not a hot bulb or hot spot Diesel and is operated in practically the same manner as a gasoline engine. Electric starting motors are furnished as regular equipment.

The engine illustrated above is a four-cylinder, 6″ x 8″, and develops 100 H.P. at 1000 R.P.M.

Write us for Bulletin No. 673 which gives complete description together with mounting dimensions.

DISTRIBUTORS AND DEALERS

NEW YORK, N. Y.
Bowlar, Holmes & Hecker Co.
259 Greenwich Street

BOSTON, MASS.
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PHILADELPHIA, PA.
Johnson & Towers, 126 Arch Street

RALEIGH, N. C.
Automotive Equipment Co.

HOUSTON, TEX.
Peden Iron & Steel Co.

NEW ORLEANS, LA.
Higgins Industries

CHICAGO, ILL.
Buda Engine Service Co.
2419 Indiana Avenue

SEATTLE, WASH.
Richard Froboese Co., 83 Marion Street

CALIFORNIA
William Sylva Co.
111 Mission St., San Francisco
Ets-Hokin & Galvan, 218 Avalon Blvd., Wilmington

FLORIDA
H. E. Caulfield, St. Petersburg
Forrest E. Johnson, Cocoanut Grove
Chas. E. Sands Co., Fort Pierce
Marshall Boat Co., Pensacola
Matthews Boat Co., Daytona
Gibbs Boat & Engine Co., Jacksonville

Branch Offices:

30 CHURCH STREET - - - - - - - - **NEW YORK, N. Y.**
664 MISSION STREET - - - - - - - **SAN FRANCISCO, CAL.**

THE BUDA COMPANY, HARVEY, { **CHICAGO SUBURB** } **ILLINOIS**

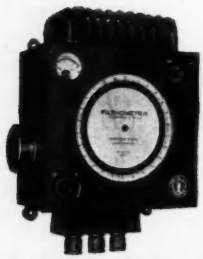
ESTABLISHED 1881

BUDA MARINE POWER

We show above various sizes of incandescent searchlights suitable for any style boat. Catalog I—Incandescent Searchlights. Catalog A—Arc Searchlights.

THE CARLISLE & FINCH CO.
261 E. Clifton Ave., Cincinnati, Ohio

ECHO DEPTH SOUNDINGS BY SOUND



are made with the

Fathometer

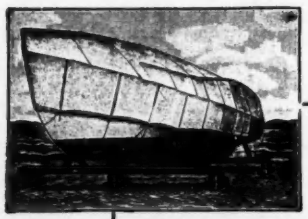
Measurements of Water Depth beneath the Keel

—are—

ACCURATE VISUAL INSTANTANEOUS AUTOMATIC

FATHOMETER SOUNDINGS INSURE SAFE NAVIGATION

Submarine Signal Corporation
160 State Street, Boston, Massachusetts, U. S. A.



Highest Grade Canvas Boat Covers

For Stormy Weather and Winter Storage

Send for our 96-page Catalog of Yacht and Marine Supplies

WHEN the winds are sharp and the spray flies. A protection for your boat during storage. Just the thing for covering hatches, engines, etc.

Furnished in the following weights and sizes:

24 oz.,	5½ x 9½ feet - - - -	$7.50
24 oz.,	10 x 18½ feet - - - -	35.00
12 oz.,	8 x 10 feet - - - -	10.00

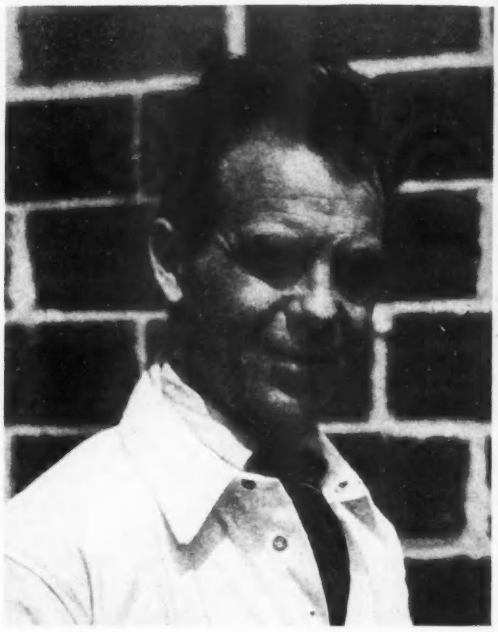
THE E. J. WILLIS CO.
85 Chambers Street New York City

New Bedford Stages Important Regatta

(*Continued from page* 46)

him. In the second heat he drove wide and passed the flying southerner on the backstretch, crossing the finish well in the lead. The real tussle in this heat was for second place between Pope and Al Buffinton. The finish was so close it was difficult to detect the winner, but Pope was considered second to cross and Buffinton scored a third.

This made the final heat on Tuesday the crucial test, and it looked as though it would be a great race between Pope and Maddocks, each with 761 points. But Maddocks had motor trouble and limped away to a poor start, Pope dashing through the field easily, winning the trophy with 1,161 points, Buffington second with 1,009 and Maddocks third with 957.



Ross Maddocks of Boston, Commodore of the New England Outboard Motor Boat Association. At the Newport, R. I. Regatta, Commodore Maddocks was the winner of the principal trophies in the larger outboard classes

Mrs. F. T. Hickey, driving Baby Whale, Warm and Anxious, won in class A division 1, while H. Ross Maddocks in Baby Whale B-23 won in Class D, division 2. In Class A division 2, D. A. Haskins in Flatiron was the winner, and Maddocks also cleaned up in Class C, division 2, in Baby Whale B-13. Again in Class B division 1, Mrs. F. T. Hickey of Shrewsbury won first honors in Baby Whale Zev, and in Class B division 2 Dick Kerr of Florida, in Lookinback Pirate, won first place.

Doug Haskins in Hooton B-31 won the outboard family boat class, George Merchant of Gloucester, driving a Dart, won the class for stock runabouts 125 horsepower, with Frank Wigglesworth driving Dart Sr., the winner in stock runabout of 150 horsepower. Mrs. Kitty Ward, driving Betty, won the special ladies' event for runabouts, and the same craft, Betty, driven by the owner, Lou Pierce of Providence, won the race for 200 horsepower runabouts.

C. Roy Keyes of Buffalo sent his two fast displacement boats Curtis Wilgold III and Carenaught to New Bedford, and they give a splendid and highly interesting exhibition race to the assembled thousands, many of whom had never seen the high powered speed craft in action before. Driven by Mr. Keyes, Wilgold III was a beautiful sight as she shot over the two mile course, with Carenaught, driven by Colonel Flickinger, practically alongside.

The weather conditions during the regatta were very fine, although there was a bit too much wind during the opening hours for the outboards to show their fastest pace. The course, however, was almost perfect for a two mile marine speedway, and if it can be lengthened out to the regulation 2½ mile course it will unquestionably prove one of the finest in the country.

Advertising index will be found on 3rd last page

Indian Summer is Cruisabout Time!

The Cruisabouts are displayed by

Bruns, Kimball & Co.
5th Ave. and 15th St.
New York City

Bruns, Kimball & Co.
102 So. Fourth St.
Philadelphia, Pa.

Belle Isle Boat & Engine Co.
8777 Jefferson Ave.
Detroit, Mich.

Washing Motorboat Sales Agency
1344 Connecticut Ave., N. W.
Washington, D. C.

Walter H. Moreton Corp.
1043 Commonwealth Ave.
Boston, Mass.

Electric Supply Co.
210 21st St.
Galveston, Texas

A. M. Deering
1454 Builders Bldg.
Chicago, Ill.

Volney E. Lacey
Charlotte Station
Rochester, N. Y.

F. D. Homan
78 Riverside Ave.
Amityville, L. I., N. Y.

THE warm, breezy Indian Summer days are among the nicest of the year for Cruisabout enjoyment. These are the days when, as you cruise up narrow, winding, wooded streams, you can enjoy the myriad shades and tones of autumn color. Or, if you prefer open water, the Cruisabout will safely take you where wind-swept white-caps thrill even the saltiest sea dogs.

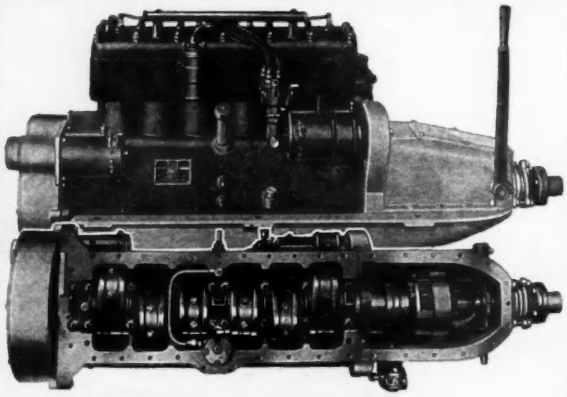
The Richardson Cruisabout is always ready to sail. Just throw aboard the food and duffle, load up with gasoline and oil and shove off to enjoy, to the utmost, Indian Summer's finest days.

Nearly 150 Cruisabouts have brought health and happiness to their owners. Only a few more can be delivered before the days of Indian Summer are memories.

Wire us to hold a Cruisabout for you or, at least, write for our free booklet "E," which illustrates and describes the Richardson Cruisabouts and which we shall be pleased to mail immediately upon receiving your letter.

RICHARDSON BOAT COMPANY, INC.
355 Sweeney Street North Tonawanda, N. Y.

Richardson Cruisabouts



SMOOTHNESS.....

. . . was not just a lucky break with the FALCON Series. Every FALCON was *designed* to have characteristics of smoothness and intestinal stamina which would distinguish them from all other engines.

What boatsman doesn't want a smooth-running job? Smoothness is the outward expression of power—endurance—quietness—and everything that goes with a dependable performing engine. . . .

FALCON SERIES

1-Cyl. 5 H.P. Cat. M-1	
2-Cyl. 10 H.P. Cat. M-1	
4-Cyl. 15 H.P. Cat. M-2	
4-Cyl. 40 H.P. Cat. M-4	
6-Cyl. 50 H.P. Cat. M-5	

. . . except one thing. And that's price. But attention has been given to that important feature too. FALCONS are surprisingly easy on your pocketbook. Let us send you all the dope—catalogs, price lists and any special information you want.

Also most complete line of marine Electric Plants 350 watts to 25 K.W.

UNITED STATES MOTORS CORP.

2 Nebraska Street **Oshkosh, Wis.**

Banfield Thirty-two Foot Sea Skiff Cruiser

PHILIPPINE MAHOGANY

supplied by

BLACK & YATES, Inc.

is used for planking by the builders of

BANFIELD SEA SKIFFS

We are in a position to supply other builders specially selected sizes of *clear Philippine Mahogany* in widths and lengths required.

Over 2,000,000 feet of dry lumber at our Brooklyn, N. Y., yard for immediate delivery.

BLACK & YATES, Inc.

Paramount Building, Times Square, New York

Tel. Longacre 1345

Improving Hard Steering

(*Continued from page* 54)

is practically rectangular in shape with the lower forward corner cut away slightly more and a shoe extended from the keel to take the lower bearing. The lower bearing for the rudder stock is advisable where the construction of the boat will allow. It affords a support which greatly reduces the strain on the stock and the shoe protects the propeller.

The runabout rudder is considered good form for high speeds but is too shallow for good results generally. The deeper and narrower rudder would seem better for general purposes for reasons already explained. This type rudder requires a good husky stock due to the greater leverage of the pressure on the rudder. The same type rudder is sometimes hung outboard with varied results.

It would at first appear that due to the greater distance aft, the outboard rudder would be more effective than the same rudder under the hull. This may prevail at slow speeds but as the speed increases the outboard rudder efficiency decreases. The outboard rudder may be a cause of hard steering which can be remedied by the installation of a rudder under the hull. The reason for lack of efficiency of outboard rudders at high speed is that the water flows up over the top of the rudder and aft along the line of action which produces the maximum side pressure. When the rudder is under the boat the hull prevents the water from piling over the rudder and forces it to flow across the rudder in an effective manner. Excessive clearance from the hull reduces the efficiency of the rudder. Only enough clearance to prevent jamming, generally about an inch, should be allowed.

The most effective rudder angle is from 30 to 35 degrees from the line of advance of the boat. In motor boats the rudder angle is generally limited to from 40 to 45 degrees, which, when the boat is swinging, maintains the given angle to the line of advance.

It is impossible to give a hard and fast rule for determining the rudder area for all boats. Slow boats require proportionately larger rudders and some owners desire exceptional turning qualities; while others are satisfied if the boat will hold a course without the constant manipulation of the steering wheel. Rudder areas are generally given as a percentage of the lateral plane considered as a rectangle, or the product of the length at the waterline in feet times the depth to the bottom of the keel in feet. On motor boats the average runs from 3 to 8 per cent. In the table, values are given for average conditions. If the boat is slow and quick turning is desired, read a half space above the line. For high speed with no great maneuvering ability, read a half space below. In some cases it may be advisable to read a whole space above or below. To illustrate, a 30-foot boat with 2-foot draft. Enter the table at the bottom at 30 feet, reading the per cent at the curve, which is very nearly 5. Five per cent of the product of 2x30 is 3. Therefore a rudder having an area of 3 feet will be suitable for the boat under average conditions.

All this about rudders and propellers does not tell how to remedy the hard steering of a boat but it does give the information from which you can determine the possible cause of the trouble. Knowing that the rudder shape, area or position is at fault it is only necessary to alter the rudder or make a new one. You will have to figure the cause of hard steering for each case, and then determine what can be done to improve conditions.

W. B. M., Newburgh, N. Y.

CURES FOR POOR STEERING BOATS

PERHAPS the outstanding difference between any two boats will be the manner in which they will respond to their helms. Even boats built by the same builder from the same plans are apt to differ in this respect.

It is a common practice for guests aboard any boat, particularly a small boat, to clamber up forward as far as they can. This bears the bow down with consequent difficulty for the man at the wheel to handle the boat. Obviously keeping folks off the nose of the boat will remedy matters, if they go no farther than being caused by the boat being down by the head.

An inch or two in the trim of a boat has much to do with her proper handling. No boating man cares to have his boat appear as if she were riding on her stern, but this condition is certainly preferable than bad handling qualities, which are not only annoying, but at times dangerous.

The addition to the keel and the enlargement of the rudder will work wonders in rectifying a badly acting boat. Ordinarily a length of new keel equal to about one-third of the overall length of the boat will suffice. (Fig. 2.)

In cases where the boat handles well in smooth water, but behaves badly when the going is lumpy, it very often happens

(*Continued on page* 122)

Advertising index will be found on 3rd last page

Bolinder, winner over all in competition and in Division 1.

Mobiloil scores again

in Capital-to-Capital cruiser classic

32-foot *Bolinder* takes first place in 900-mile race from Olympia to Juneau

For the second time a Mobiloil-lubricated boat captures the honors in the Pacific Coast cruiser classic. Last year in the first Capital-to-Capital race from Olympia, Washington to Juneau, Alaska, Mobiloil made a clean sweep of 1st, 2nd and 3rd places.

This year under most adverse weather conditions the victorious little 32-foot yacht *Bolinder* made a remarkable showing. Fighting her way up tide-riven inlets and across open gulfs where the rollers were running 12 feet high, she covered the hazardous inside passage to Alaska without a hitch. Correctly lubricated with the New Mobiloil, her sturdy engine functioned perfectly throughout the 900-mile grind.

Captain Richard Froboese of the Seattle Yacht Club, owner and pilot, won first place over all and in Division 1, and was awarded the prize for the longest non-stop run—a distance of 783 miles.

Captain Froboese is enthusiastic in his praise of the New Mobiloil, as are other experienced pilots throughout the country. High-speed performance is the acid test of a lubricating oil and the New Mobiloil rides with the winners wherever motor boats are raced.

Mobiloil dealers from coast to coast have complete stocks of the New Mobiloil in all grades. Refer to the Mobiloil chart for the correct grade to use in your make of engine.

VACUUM OIL COMPANY

Makers of high-quality lubricants for all types of machinery

Make this chart your guide

If your engine is not listed here, write to the Vacuum Oil Company, 61 Broadway, New York. The winter recommendations specified on this Chart should be followed when freezing temperatures below 32° F. are encountered, unless the engine is kept warm while not in operation.

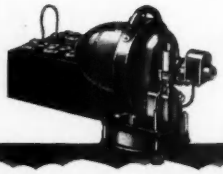
NAMES OF MOTOR BOAT ENGINES	1929 Engine		1928 Engine		1927 Engine		1926 Engine	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Buda	BB	A	BB	A	BB	A	BB	A
Chrysler, Royal AM & AMR	BB	A						
" Imperial AM	BB	A						
" Royal & Imperial, *all other models*	B	A	B	A	B	A		
Elto, Outboard	A	A	A	A	A	A	A	A
Evinrude, Outboard	A	A	A	A	A	A	A	A
Gray, 4-30, H-50, 6-72, H-75, 8-100 & 6-60	BB	A	BB	A	BB	A	BB	A
" A-6 & Z-6					BB	Arc.	BB	Arc.
" 0, 1-5, 2-10 & 2-cycle	A	A	A	A	A	A	A	A
" *All other models*	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Hall Scott, A. C. F.	B	A	B	A	B	A	B	A
Johnson & Johnson Seahorse, Outboard	A	A	A	A	A	A	A	A
Kermath, 85, 125, 150	B	A	B	A	B	A	B	A
" J, 4-5, 6-8, 12, 16 & 20	A	Arc.	A	Arc.	A	Arc.	A	Arc.
" 200	D	A						
" *All other models*	BB	A	BB	A	BB	A	BB	A
Lathrop, 100 & Mystic	BB	A	BB	A	BB	A	BB	A
" *All other models*	A	A	A	A	A	A	A	A
Lockwood Ash, LA, 41					A	Arc.	A	Arc.
" *All other outboards*					A	A	A	A
Lockwood, 41	A	Arc.	A	Arc.				
" *All other outboards*	A	A	A	A				
Palmer, 2-cycle	A	A	A	A	A	A	A	A
" NK, NK, NL, F, ZR, PNR	B	A	B	A	B	A	B	A
" *All other models*	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Red Wing Thorobred, A, D, K, KK	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Red Wing Thorobred, Big Chief SP Six, Special Six, Four, BB SP Six H. S. & BB Six H. S.	B	A	B	A	B	A	B	A
Red Wing Thorobred, *all other models*	BB	A	BB	A	BB	A	BB	A
Scripps, F6 Jr. Gold Cup (50, H6, 202, 172, F4, F6, 171, 162, 163	B	A	B	A	B	A		
" *All other models*	BB	A	BB	A	BB	A	BB	A
Standard, N. J.			B	A	B	A	B	A
Stearns Extra Reserve	B	A	B	A	B	A	B	A
Sterling, Neptune	A	Arc.	A	Arc.	A	Arc.	A	Arc.
" Coast Guard	BB	A	BB	A	BB	A	BB	A
" *All other models*	B	A	B	A	B	A	B	A
Universal, Single Cylinder	A	Arc.	A	Arc.				
" Flexifour	BB	A	BB	A	A	Arc.	A	Arc.
" *All other models*	B	A	B	A	B	A	B	A

the New GARGOYLE Mobiloil

Indian Summer Nights afloat—

Add to your enjoyment and safety—install a Homelite Portable Electric Light and Power Plant. Generator with built-in air-cooled gasoline engine stows in 21″ x 14″ x 21″. Batteries have reserve capacity of 2500 watt hours. Plenty of power for fans, anchor hoists, percolators, tools. Carry it ashore for camping. Write.

HOMELITE CORPORATION
79 Riverdale Ave., Port Chester, N. Y.



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HOMELITE
Portable Electric Light & Power Plant
3746

The Newest Member of the
DYER MOTORCRAFT Family

"Protest"—a spectacular speed cruiser, the first of a fleet of 38-foot, twin screw express commuters.

This yacht is built of the special patent construction used in all Dyer Motorcraft. It has the greatest strength per material weight known to naval science and is particularly suited for fast work in rough water.

Watch for further announcements in September issues.

DYER MOTORCRAFT CORPORATION
EAST GREENWICH, RHODE ISLAND

The World's Best Built Boat.

Cures for Poor Steering Boats

(*Continued from page* 120)

that ballasting to a water line will do the trick. (Fig. 3.) It is not always advisable to place ballast as low as it can be put and along the center line of the boat.

Very often it happens that ballast placed along the bilges as far away from the keel as possible has completely transformed a boat's actions.

In Fig. 4 is shown an expedient which will enlarge the rudder without unduly straining the rudder post as would be the case if the extension were attached to the after part of the rudder. It gives approximately all the surface that could be safely attached to the after part of the rudder without incurring the danger which a long rudder faces in a following sea.

The oblique cut to the top of the addition follows a practice followed by the sail boat architect and which has demonstrated its worth for centuries.

An outboard rudder by virtue of its position exerts a greater leverage than the under-the-counter rudder. While the difference in position is not great, yet the difference in leverage is.

By filling in the space occupied by the under-the-counter rudder the dead wood surface so built up tends to give a steadying effect to the boat, comparable to the forward fin often used on racing craft.

Remedying a cranky boat is not a question of rule, but rather one of experiment. If the hull design is not inherently wrong from a great many viewpoints, some one of the suggestions outlined in this article will be found effective.

J. E. M., Norwich, Conn.

Correctly Piped Exhaust Lines

(*Continued from page* 56)

and hull. If it is of the screw or bolt fastened type, rather than the type using lock-nuts, use through bolts of ample size, and be sure that they are bronze or galvanized.

If you have ample funds, by all means use brass pipe and fittings for the cooling water circulating system on the motor. If you must economize, then use galvanized; however, never use black pipe or fittings. The exhaust line can be of galvanized iron or the stock copper tubing. The outboard exhaust fitting should be of bronze. The outboard fitting for the circulating water overflow should be of bronze or brass, and a short piece of heavy steam hose should be connected in the line at some point close to the outboard fitting. This outboard fitting should also be made waterproof, using gaskets under the flange or lock-nuts.

In cases where the boat is to be used in fairly shallow water, or there is a likelihood of running aground frequently, two inlets should be provided for the cooling circulation water to the motor. One of these is located at a point where the hull is deeply submerged, while the other is placed just below the waterline. Each of these inlets should be well fastened, absolutely leak-proof, and well screened. Stock inlets can be purchased and used for this purpose. Each of these inlets is connected to a three-way cock, (installed above the engine-room floor where it is accessible), and from there to the pump. In case of grounding water is taken from the upper inlet and mud or sand is not drawn into the pump or circulating system. As soon as the boat is floated the lower inlet is used. By using the three-way cock, either inlet can be used at will, or the supply cut off entirely, as in the fall or winter months when it is necessary to drain the motor jackets to prevent damage from freezing.

V. L. S., Wilmington, Del.

A SIMPLE PIPE SYSTEM

FOR the open boat, the piping installations illustrated are ideal. Small V-bottom runabouts in which every inch of available space is desirable, can use nothing better than the hookup shown in Fig. I.

With this procedure the space from the end of the motor to the stern is left clear for all possible passenger space. There will be little, if any, annoyance from flying exhaust spray if the exhaust cover shown in Fig. 3 is used. This will tend to divert the spray sternward, concentrating in one stream which will be carried aft of the boat before there is chance for it to work inwards.

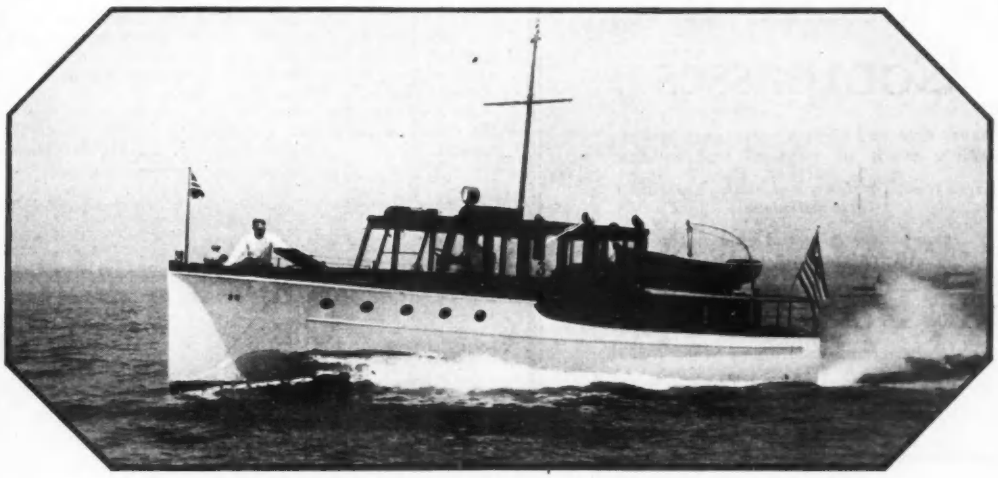
A similar cover should be placed over the underwater exhaust. This will expedite the flow of the water, since the construction of the cover tends to create a vacuum, which actually pumps out the water from the hose.

The vent hole in the forward part of the exhaust cover is

(*Continued on page* 124)

Advertising index will be found on 3rd last page

COLUMBIAN
BRONZE PROPELLERS



Cap'n Allswell says:
"A Columbian gives championship stuff to any kind o' craft."

The same Columbian that made a Champion of the SEA DREAM III, makes a new Champion of the SEA DREAM IV.

For two years the Sea Dream III, owned by G. de Freest Larner, was winner of the Block Island Run.

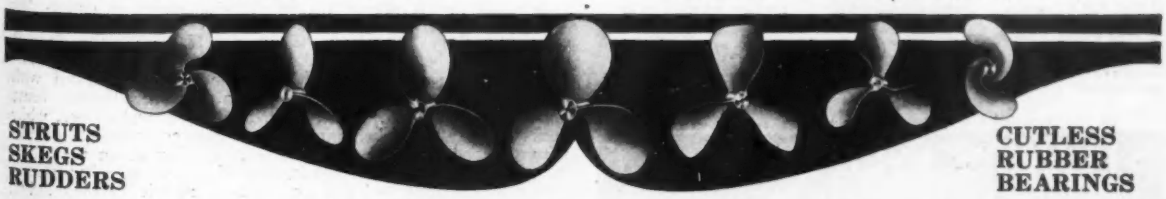
This year Mr. Larner again won the Block Island Run, this time with the Sea Dream IV. A new boat . . . . but using the same Columbian propeller that won championships for the Sea Dream III.

To those who are not familiar with Columbian Propellers this is a remarkable performance, but it is the kind of performance which Columbian users are experiencing every boating day.

Whether it's a Put-Put or a luxurious, seaworthy yacht, there's a Columbian Propeller for your craft. Write for "Propellers in a Nutshell."

H. A. B. SNEVE COMPANY
Pacific Coast Sales Representatives
38 Spear Street - - San Francisco
62 Marion Street - - - Seattle

COLUMBIAN BRONZE CORP. **208 No. Main St., Freeport, L. I., N. Y.**



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STURGES ANCHOR HOIST

Easily installed by anyone without disfiguring or marring your cruiser in any way.

Makes Anchor Raising Easy

THIS simple practical device makes anchor raising the easiest job on your boat. The Sturges Anchor Hoist provides every requirement for lowering and raising the anchor with minimum manual effort. When not in use, the davit and the hoist can be unshipped, leaving only the base on deck. The Sturges Anchor Hoist is made for any type of anchor up to 100 lbs. Sturdily built, heavily galvanized. Furnished entirely in brass at slight extra cost. The davit can be designed especially to fit your boat without extra cost.

Rope is easily applied in open type block.
Model No. 2 with 3 speed transmission, for anchors 60 to 100 lbs. The low speed gives powerful leverage for breaking the anchor loose from a mud bottom. Second speed (on which the handle is shown) is normally used for hoisting the anchor. The high speed or direct drive on main shaft is for quickly reeling in the slack of the rope. This model also has powerful brake for lowering anchor into water.
Made in three different sizes.
Davit unships here.
Carrying handle.
Windlass unships here.
Combination base, including bitts, adds to appearance of boat.

You will be surprised at the many features of the Sturges Anchor Hoist. Let us explain them to you. Write today for details and prices.

Patent Applied For

We also manufacture a special hoist for handling outboard motors.

STURGES ANCHOR HOIST

53 Kensington Road, Bronxville, N. Y.

Simple Pipe System

(*Continued from page* 122)

essential for it prevents any possible back pressure. The size of the hole is given in the drawing in approximate relation to the overall area of the cover.

For the large runabout the installation shown in Fig. 2 is ideal. The exhaust line after it leaves the vicinity of the motor occupies space which could be used for little else. There will be no appreciable heat from the exhaust line, since the gases will be sufficiently cooled after they have left the muffler.

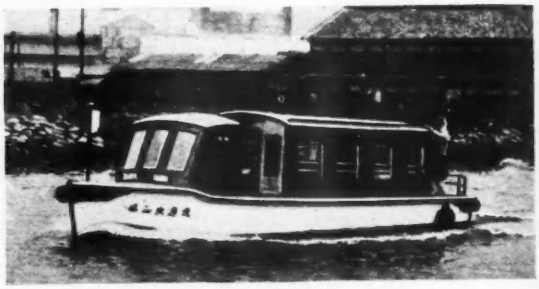
While this installation lends itself readily to the boat which has a motor compartment, yet it is especially adapted to the boat which has no engine compartment, only an engine box. This hookup allows free passage fore and aft on both sides of the motor.

Both these installations eliminate the unsightly water exhaust over the side, so common with the commercial boat and eradicated in the modern motor boat.

Both these systems are adapted for cabin boat use, but since the rolling of the boat will tend to pump engine gases into the interior of the boat through the medium of the underwater exhaust line, it is advisable in these cases to incorporate a shut-off valve in the exhaust line.

By shutting this when the boat is anchored for the night, there will be no chance for gases to disturb anyone who sleeps aboard.

J. E. M., Norwich, Conn.



A Universal Flexifour supplies power for this 28-foot Japanese ferry

A UNIQUE FERRY BOAT

From Osaka comes further evidence that the progressive Japanese have gone the Occidentals one better in modernizing their passenger ferry boats. For in the fleet of ferries operated by the Daikyn Motor Company between the Dotombori River and the Shirinashi River, there are a number of features which, though strange to us, commend themselves for service and good sense. The seating arrangements, as will be noted in the illustration, are very similar to those used in our own subway or surface cars. Even the arrangement of doors, of railed windows, and of lights is designed without any particular regard for nautical precedent, but rather for the matter-of-fact job of hauling passengers comfortably, safely, and rapidly.

Seating accommodations are provided for twenty passengers, plus ample space for the rush-hour crowds of standees; and for these it will be noted that instead of monkey-rails or life-lines, the conventional strap-hanger has been provided.

The boats are 28 feet long with an inside width of five feet, eight inches. Ten of them are equipped with Universal Flexifour Motors, rated at ten to fifteen horsepower. With these, the ferries are able to maintain a seven-mile-per-hour schedule. Two more boats in the same service use Universal Super-fours. All were imported only after careful investigation had been made to select a motor well suited to stand up under the rigorous requirements of regular ferry service.

OUTBOARD RUNABOUT MODEL ANNOUNCED

To meet popular demand for five-passenger outboard family runabout can be used with the average class B motor, the Herbst Boat Works, Wilmington, North Carolina, is bringing out a new type known as their model H. With the class B motor speeds between 20 and 25 m.p.h. will be possible. The boat is to be a 14-footer with a 54-inch beam, planked with 3/8-inch mahogany, Goodrich aeroboard rubber bottom being optional, fastenings throughout will be of brass and copper, while decks and trim will be finished in natural color with the hulls natural wood or painted, as desired. Equipment on the model H will be unusually complete, including among other things, forward steering wheel and gas control, electric running lights, life preserver cushions and all necessary hardware.

Advertising index will be found on 3rd last page

THE TREND IS TO TREIBER

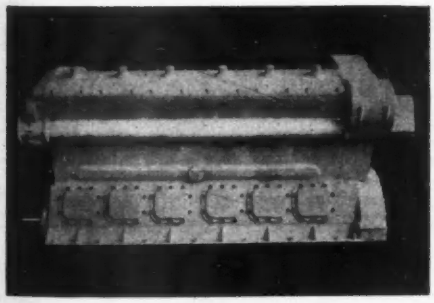
for more miles per hour of comfortable, vibrationless cruising—with Diesel safety and economy

✧

Whether you contemplate the building of a new boat or the Diesel conversion of the old, you should by all means investigate the Treiber, the progressively different yacht Diesel, built in sizes and types to meet practically any H.P. or service requirement. As a first step in this direction, send for the Treiber Bulletins. They illustrate and describe Electric Generator Sets, 7½ to 70 K.W. capacity, and Marine Engines, 65 to 3000 H.P.

✧

one-third the space



one-sixth the weight

Denoting the Trend to Treiber:

The United States Navy has ordered the **100 h.p.,** 6-cylinder Treiber Diesel for installation in 35- and 40-foot motor launches.

Frederic P. Humphreys, Inc., Keyport, N. J., have ordered the **150 h.p.,** 6-cylinder Treiber Diesel for installation in their 55-foot standardized cruiser, "Commander."

The Herreshoff Manufacturing Company, Bristol, R. I., has ordered **600 h.p.** in Treiber Diesels for installation in a 93 ft. x 16 ft. Diesel Yacht, designed and now building by them.

The Purdy Boat Company, Inc., Port Washington, Long Island, N. Y., has ordered **1200 h.p.** in Treiber Diesels for installation in two 72 ft. x 14 ft. Express Cruisers, designed and now building by them.

The Consolidated Shipbuilding Corporation, Morris Heights, N. Y., has ordered **1200 h.p.** in Treiber Diesels for installation in a 130 ft. x 20 ft. Diesel Yacht, designed and now building by them.

✧ ✧

The orders cited above clearly indicate the outstanding class of buyers leading
THE TREND TO TREIBER

TREIBER DIESEL ENGINE CORP.

Dept. MB Camden, N. J. U. S. A.

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COURTESY GAR WOOD, INC.

follow the fastest boats with the finest glasses

Here they come, roaring 93 miles an hour in a cloud of flying spray ... Your pulse quickens as you follow them with a Zeiss ... And no matter how fast they leap, your *wide-angle* Zeiss won't miss a single thrill. Ask your dealer to show you one or write for catalogue T-380.

Carl Zeiss, Inc., 485 Fifth Avenue, New York
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CARL ZEISS
BINOCULARS

CARL ZEISS JENA

Of striking beauty and staunch construction these Artistic Steel Floats are designed for use as permanent moorings. They may be constructed in any size and anchored in any harbor.

ARTISTIC STEEL FLOATS

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NOW READY
Outboard Rules for 1929
and
How to Run an Outboard Regatta

Price 25 cents

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959—8th Avenue, N. Y. City

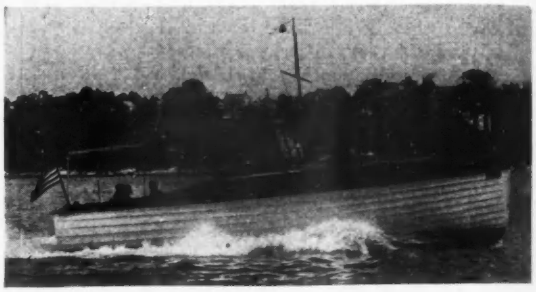
YARD AND SHOP

SEATTLE GETS SECTIONAL CHAMPIONSHIP REGATTA

Official sanction has been given the Seattle Outboard Club to hold the Northwest sectional outboard regatta in September. Champions to be decided from Washington, Oregon and Idaho, will be sent to the National Outboard Championship Regatta to be held at Peoria, Ill., October 12 and 13. Several sites have been suggested with Lake Washington getting the popular vote. According to E. Larson, secretary of the Seattle club, the sanctioning of the sectional event and the news of the Peoria National Championships has given outboard racing additional interest throughout the Northwest.

LIST STUNT EVENTS

The American Power Boat Association has just issued an interesting booklet containing data on many informal stunt races that will come in mighty handy when the regatta committee is registering thought as to what to do to add that different touch to the series of events. The booklet explains the ways and means of developing such informal events as relay races, bucket races, navigation contests, sealed order races and other novelties always of interest.



Duck Soup, a 32-foot Banfield sea skiff owned by H. A. Maxwell, New York, does 26 miles with a Kermath six of 150 h. p.

WHAT GOES INTO THE RUNABOUT

It has been said that the whole of a thing equals the sum of all its parts. Think, then, of the infinite number of parts which is represented every time you see a Chris-Craft mahogany motor boat shooting by. Think that not so long ago exactly five thousand eight hundred and twenty-five separate pieces of wood were lying in the shops at Algonac. Along came five hundred workmen and set to work on these pieces of wood. They cut and fitted, planed and smoothed until before very long a completed boat stood on the floor. A boat in place of the five thousand eight hundred and twenty-five nameless pieces of wood. A thing with beauty, character and life had sprung into being at the hands of these craftsmen, where before had lain a lifeless pile of lumber.

Forty-one hundred and sixty bolts and screws get in their good work in keeping these boats together. Big screws, little screws (all brass screws, though), bolts, lag screws and copper tacks form this great army of fasteners. Every piece is so tightly in place that wind or wave can never loosen it. Truly the boat has become an integral unit.

So think, next time you see one of these mahogany boats slide by, of what they represent. Think of the consummate art in building such a craft.

DUKE OF YORK ENJOYS FAST BOAT RIDE

It would seem that the recent speed boat races in England had served to whet the Duke of York's boating appetite to a higher pitch than ever. For two days he sat on the shore watching the boats churn up the water before him. He saw the competitive runs, and the mile trial of Sir Henry Segrave in his Miss England doing 85 miles per hour. Still he wasn't satisfied. He wanted to get out on the water.

Along came Arthur Bray in his Chris-Craft motor boat, and the temptation was too much to resist. So the royal party got down from the royal stand and climbed into this 28-foot speedster. Mr. Bray gave her the gas, and she began to climb out of the water. Spray flew out on both sides as their speed increased, and at forty-five miles the Duke's face broke into a broad smile. He thought they were going at least eighty, and said so. So much faster was the actual motion than it would appear if seen from the shore, that the illusion was most extraordinary. Forty-five miles an hour was fast enough for him and after several miles at that speed the party returned to the stands, the Duke voting that motorboating was the finest sport on earth.

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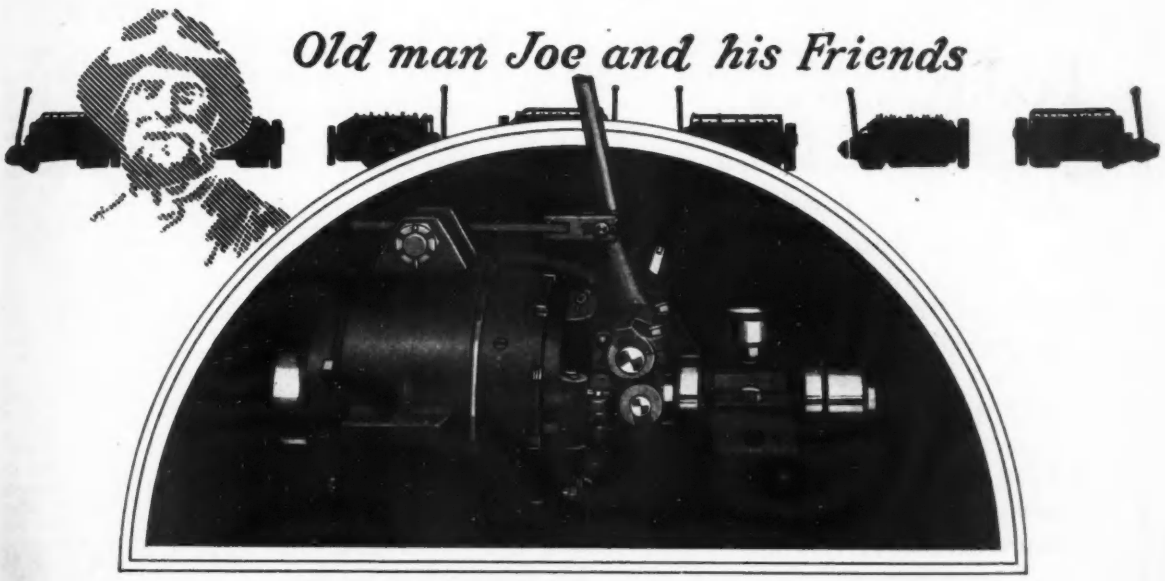
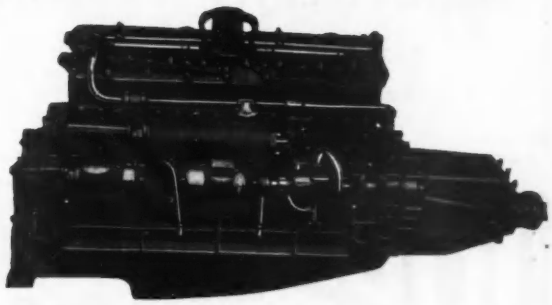


48 Engine Builders Standardize on Joes Gears

POWERED BY LYCOMING!
GEARED BY OLD MAN JOE!



Little need be said about Lycoming. They are known the world over as outstanding engine builders in every field.

Old Man Joe is proud to list Lycoming among his family of forty-eight leading marine engine builders who have standardized on Joes Reverse Gears.

Could further proof of superiority and performance be asked than that these forty-eight leaders equip their engines with Joes Reverse Gears?

For Bulletin 27A, describing Joes Gears in detail, write the Snow & Petrelli Mfg. Co., 19 Fox Street, New Haven, Connecticut.

Sales and Service in 30 Ports—

New York.....Sutter Brothers
Boston.....Gray-Aldrich Co.
Philadelphia.....W. E. Gochenaur
Baltimore.....Mahon & Gall
Washington.....Barber & Ross
Norfolk...Gas Eng. & Boat Corp.
Miami.... .....Berner-Pease Co.
Mobile.....Marine Supply Co.
New Orleans.....Duvic's Sons
Galveston.....Gal. Marine Sup.
Wilm,. Cal.....Fellows & Stewart
S. F.. Cal.....Johnson, Joseph & G. M. Josselyn
Portland, Ore.....Marine & Fisheries Supply Co.
Seattle.....Pacific Marine Eng.
Chicago.....W. L. Masters
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Detroit.....H. H. Smith & Co.
Grand Rapids... Mich.Wheel Co.
Cleveland.....Wm. F. Meier
Clayton N. Y..St Lawrence River Motor & Machine Co.
Rochester N. Y.....V. E. Lacy
Vancouver.....Hoffar-Beeching
Toronto.... .....A. R. Williams
N. B. Can.....McAvity & Sons
Newfoundland .....John Barron
Buenos Aires.....Jose Banham
Canada.....Can. Fairbanks-Morse
Rotterdam.....Fred J. Kemper
London.....J. King & Co.
Melbourne..... Acme Cycle Co.

JOES
FAMOUS REVERSE
GEARS

REVERSE 80%~88%
of Motor Speed

JOES GEARS HAVE THE DOUBLE CLUTCH—PROTECTED BY PATENTS

Today . . .

The Detroit Yacht Club Has One of the Largest Fleets in the Entire World

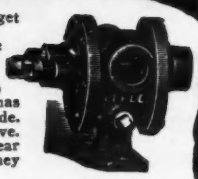
Are you reaching this active market with the minimum of sales expense? It can be quickly and easily accomplished through the pages of the D. Y. C. MAIN SHEET—Yachting's finest club publication. Rates and circulation data on request.

The Main Sheet

W. D. Edenburn, Editor

General Motors Bldg.—Detroit

LOBEE CIRCULATING & BILGE PUMP



You can't get a better or more reliable pump than the Lobee because there isn't a better one made. It has been the World's Standard of Pump Quality for 25 years. No other pump has proven so popular in the marine trade. Simple, compact, noiseless and positive. These pumps will outwear the engines to which they are attached.

Gear and Rotary Pumps from ½" to 1½" suction and discharge. Different designs for various types of drive and mounting made to order.

Write today for catalog and prices. Sold by Leading Dealers Everywhere.

Lobee Pump & Machinery Co.

1790 Niagara Street, Buffalo, N. Y., U. S. A.

B. Schellenberg & Sons

EVERYTHING FOR THE PERSON OF THE YACHTSMAN, HIS OFFICERS AND HIS CREW

Clubs, yacht owners, commercial boat owners should take advantage of our almost 70 years' experience in outfitting the mariner, both inland and deep sea.

Crews and Club attendants furnished without Charge

B. SCHELLENBERG & SONS

Established in 1857

99 to 105 Myrtle Avenue

(Near Bridge Street), Brooklyn, N. Y.

Telephone: Cumberland 0804

Galilee, a Double Ended Skiff

(*Continued from page* 64)

just as they are for a very good purpose and I have been a long time fathoming the whole thing out. You know a boat plan is much like a column of figures; if you change a number you get a different sum, in other words the whole thing is changed.

In connection with this: only recently I had a letter from one of MoToR BoatinG's large family of readers in which he tells me he bought a boat built from the plans of Ripalong which appeared in the May number. However, the builder added a deck house and made a number of other vital changes and, of course, the doat does not come up to expectations. And neither will Galilee if the plans are altered in any vital respect. There is nothing experimental about this little packet. I have had three boats built very similar to this one and these are still proving themselves to be even better than expected.

The principal dimensions of this, the latest of MoToR BoatinG's fleet, are as follows: Over all length 24 feet, length of water line 23 feet, breadth on deck 4 feet 6 inches, breadth on water line 3 feet 10 inches, and draft (hull without propeller) 11 inches. The freeboard at the bow is 2 feet 0 inches, and at the stern 1 foot 4 inches. The displacement is 1,550 pounds.

By now you will have noticed that if a two bladed propeller is used it can be turned so as to lay horizontally and then the boat can be beached anywhere without danger of damaging anything. The rudder you see is no deeper than the keel. There is no strut to become bent or shaft hanging below the hull.

Now another feature of Galilee, or in fact any boat with a box deadwood, is that the shaft angle can be kept small, five or six degrees at the most.

The stern in this one has been pinched in until it is sharp; and after all this seems to be the trend in motor boat design. There are many very good reasons for designing boats with sharp sterns; simplicity, strength, seaworthiness, lessened wind resistance, and appearance.

The arrangement is not new, but is very practical. In the first place this is not a boat for excessive motor power. Twenty h.p. will be ample and thirty will give this little one a speed of better than 23 miles an hour. I should say 16 to 20 h.p. would be ideal, but pick your motor with an eye on weight and compact dimensions.

Just abaft the ventilator there is a watertight bulkhead, with another forward of the motor and a third at the forward end of the cockpit. These must be real bulkheads fitted with screw plates for access. Now you see if you ship a sea in the cockpit Galilee will not founder, and with a canvas bucket it can be bailed out. It might be well to fit a self bailer in the engine space as well as the open cockpit. It would be fine if the cockpit floor could be set high enough above the water line to free itself; but this is too small a craft for this arrangement; unless one sat on the floor and that would not be comfortable.

I have shown a wide low seat across the cockpit; this should be set at an angle, slanting off aft. Always in the past with few exceptions I have shown steering wheels in my runabouts having the post vertical. You have no idea of the comfort of this. In this particular boat I have used the vertical post for another purpose and that is to keep all the mechanism in either the cockpit or engine compartments. The tiller lines lead well from a vertical wheel too. By using a wooden tiller on the rudder head the expense is kept down and while there will be a little slack when the wheel is hard over I think you will find this not a bad fault.

I find that in one of the local yards at Huntington that I can have Galilee built with exception of motor for $1,100.00. This would be for a nicely built and finished hull either varnished or painted. Keel to be clear yellow pine, frame white oak, planking and decks white cedar, trim mahogany.

Next month I shall continue the story of Galilee accompanying this with construction plans and sketches showing details of the craft's many unusual features. Readers contemplating building this little vessel can obtain blue prints drawn to a scale of 1 inch to the foot at moderate cost by writing the Editor, 959 Eighth Avenue, New York, N. Y.

Agawam III—New Cruiser Champion

(*Continued from page* 47)

Kermath six cylinder engines never faltered despite the rough going and dashed across the finish line in an elapsed time of four hours, thirteen minutes and forty five seconds. She was about thirteen ahead of the second boat to finish which was Evader, owned and driven by Commodore J. W. Bullard of the Sheepshead Bay Yacht Club. By reason of a time allowance of slightly over one hour, Agawam III was given a corrected time of three hours, 12 minutes and 47 seconds which placed her safely in the commanding position. As the other

(*Continued on page* 130)

Advertising index will be found on 3rd last page

And at Newport KERMATH Powered CHRIS-CRAFT Are the Winners!

More red letter days chalked up on the Kermath calendar of victory and accomplishment! Newport, on August 2nd and 3rd, gave Kermath powered Chris-Craft three firsts in a series of four hotly contested stock events. A Chris-Craft, powered with a Kermath "150," crossed the finish line first in its class—while the Kermath "200," in two other events, placed victory in the hands of its owners. Kermath engines have consistently swept the field—are doing it today! Kermath engineers—Kermath resources—Kermath reliability and performance—are daily tested in the crucible of racing competition. . . . Kermath motors render full-measured results to their owners—everywhere.

KERMATH MANUFACTURING COMPANY

5879 Commonwealth Avenue **Detroit, Mich.**

"A Kermath Always Runs"

Compressed Air Marine Signal

PATENTED

Made in 15 models and tones for all types of sea, river and lake craft. With curved and straight projectors of polished brass. Operates from pet cock or air tank.

Duplex Model

"STROMBOS"

Junior Model

When the storm's at its worst your Strombos is at its best! Touch the button or cord and Strombos—*the long distance marine signal*—speeds your warnings and messages far ahead, through storm, wind, fog and noise. And regardless of the weather, your Strombos signal tone is pleasant, cheerful—but commands respect.

Strombos Junior is primarily for smaller craft, with the same distinctive tone but shorter audible range. Complete, as shown, with magnet and regulating valves, air accumulator and reservoir, bands, brackets and tubing. Chromium plating.

J. THOS. RHAMSTINE* **504 Woodbridge St. E.**

Successor to American Strombos Co. **Detroit, Michigan**

NOTE: The Rhamstine* Strombos is patented. There have been no licenses granted and any air diaphragm horns employing the principle covered in our patents a re infringements.

DEALERS

Some territory still open. You will find selling Strombos signals a source of satisfaction to your customers and yourself. Write or wire us today!

AGAWAM III—CRUISER CHAMPION

(*Continued from page* 128)

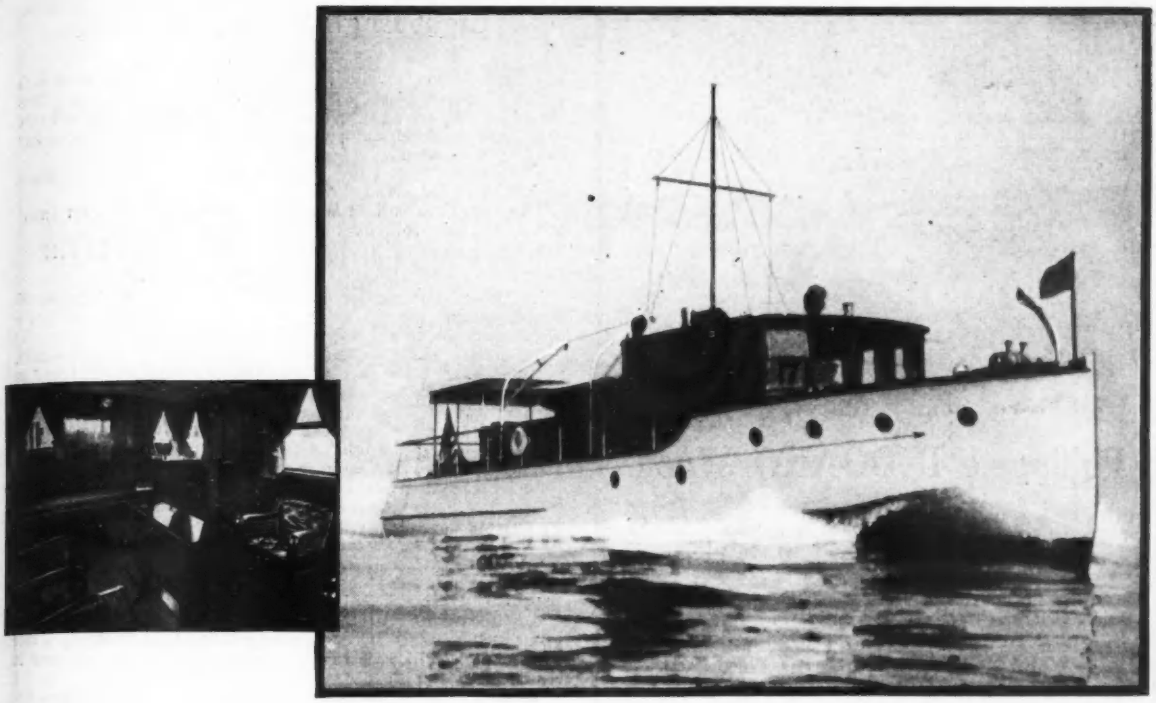
boats in the race reported in, the process of determining the corrected time for each aroused much interest on the part of the spectators when it was observed how closely these corrected times worked together and it was not certain for a considerable time as just who the winner would prove to be. The second boat on corrected time was the Fleetwing cruiser, Wanderer II, owned and operated by Dr. W. L. Liefeld, also of the New York Athletic Club and the third boat was Marigold II owned by W. A. Golden. Scaroon, another Fleetwing cruiser owned by P. Leserman, Jr. of the Colonial Yacht Club was the fourth boat in, giving second, third and fourth places to the three Fleetwing boats taking part in the race. Sea Dream IV, which had been looked upon as the probable winner, could not do better than fifth place and it seems that some shifting of ballast and added weights had affected her speed by a few seconds per mile or just enough to throw her out of the winning position.

The competition for the Hunt Trophy was based on the past performance handicap and while it was stated that Idler III was the winner according to this method of handicapping, there is some doubt at this time as to the correctness of this report. It seems that some of the skippers made changes in the propellers of their boats without reporting this fact to the handicap board so that they were handicapped on the strength of races in which they had taken part during the previous year. Any changes in the engine or propeller equipment, void a past performance certificate and it is necessary to apply anew for a temporary certificate on which the speed will be established again under the new conditions. There seem to be too many racing skippers who do not take the trouble to familiarize themselves with all of the rules pertaining to this form of racing and until they cooperate more fully with the racing committees in this respect, the past performance rules will not have an opportunity of proving their real worth. As the matter stands at this moment the winner of this trophy is still doubtful and until the matter is cleared up no definite announcement can be made. A summary of the results of this race according to the measurement rules of the American Power Boat Association follows:

CRUISER CHAMPIONSHIP OF NORTH AMERICA
JULY 27, 1929, 50 NAUTICAL MILES

			Rating	Allowance	Elapsed	Corrected	Pos.
Myrel II	P. C. Samuels	Colonial Y. C.	46.78	1-28-38	4-52-49	3-24-11	6
Andy	D. C. Anderson	Bayside Y. C.	39.08	2-21-17	5-55-15	3-33-58	9
Scaroon	P. Leserman, Jr.	Colonial Y. C.	46.30	1-31-23	4-52-16	3-20-53	4
Marigold II	W. A. Golden	N. Y. A. C.	45.26	1-37-37	4-57-00	3-19-23	3
Damfino III	J. E. Wiche	Harlem Y. C.	45.81	1-34-18	5-50-41	4-16-23	12
Rusalka	J. R. Reuling	Bayside Y. C.	36.90	2-40-09	DNS		
Sea Dream IV	G. DeF. Larner	Sheepshead Bay	48.00	1-21-51	4-43-45	3-21-54	5
Wampeague	W. C. Croll	N. Y. A. C.	37.04	2-38-55	6-09-50	3-30-55	8
Wanderer II	W. L. Liefeld	N. Y. A. C.	47.88	1-22-31	4-36-34	3-14-03	2
Idler III	O. E. Von Au	Sheepshead Bay	51.32	1-05-00	4-29-39	3-24-39	7
Paducah	P. J. Downey, Jr.	Sheepshead Bay	45.60	1-35-33	5-24-08	3-48-35	10
Evader	J. W. Bullard	Sheepshead Bay	59.77	0-30-35	4-26-08	3-55-33	11
Suzanne	A. Gobel	Sheepshead Bay	52.49	0-59-37	DNF		
Spendthrift II	A. Zukor	Colonial Y. C.	56.37	0-43-12	DNF		
Agawam III	W. C. Baldwin	N. Y. A. C.	52.19	1-00-58	4-13-45	3-12-47	1

Advertising index will be found on 3rd last page



Vinyard

50 and 55-Foot
TWIN-SCREW MOTOR YACHTS

For Those Who More Than Care

COMPLETE enjoyment of cruising or living afloat can be had in no greater measure than that given by Vinyard 50 and 55-Foot Twin-Screw Motor Yachts. Custom built of the best materials and embodying every comfort of home, these magnificent cruisers are intended for those who appreciate the finer standards of motor cruising.

Vinyard Twin-Screw Motor Yachts offer the owner and his guests luxurious and spacious accommodations with every essential convenience. There is a roomy deck house large enough for social gatherings or dining. The 55-foot model has a separate dining room in addition to the deck house.

The guest's room for two is tastefully appointed. The owner's room, sleeping four, has a built-in book case, radio cabinet, combination spinnet desk and dressing table. Both the guest's room and owner's room have private entrances to the lavatory and shower, and access to any part of the yacht without disturbing others. The cabins are handsomely furnished with velvet carpets, silk curtains and other refinements. The galley is most complete and includes a Frigidaire refrigerator and hot water heater. Delco water pressure system supplies running water to all outlets. A Delco electric lighting plant is also regular equipment.

Twin six-cylinder Sterling or Kermath motors are optional.

We will be glad to send you further particulars.

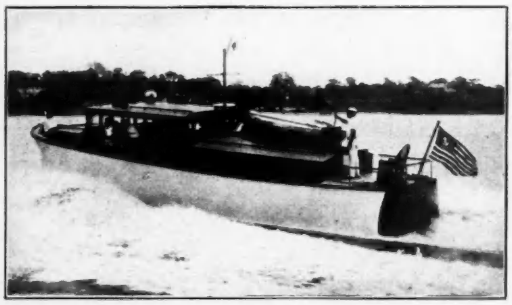
Reservations for Fall or Southern delivery should be placed now

VINYARD SHIP BUILDING COMPANY

Designers and Builders of Yachts and Cruisers of the Highest Class

MILFORD, DELAWARE

A FAIRFORM FLYER



Philippine INDOAKO Wood

(formerly sold by us as "Philippine Mahogany")

is used for Planking by

HUCKINS YACHT CORPORATION

to insure the maximum service and durability for which their *Fairform Flyers* are so well known.

We can supply YOUR boat builder, the same high quality CLEAR Philippine INDOAKO Wood, from our stock of over 4,000,000 ft. now on our yards here.

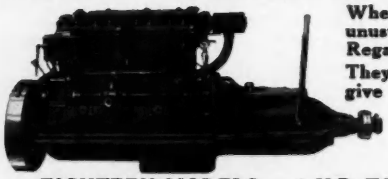
Circular, sample and prices on request.

INDIANA QUARTERED OAK CO.

222 East Avenue **Long Island City, N. Y.**

For Constant Service There Are None Better Than

REGAL MARINE ENGINES



Where service is unusually hard Regals serve best. They are built to give constant service at the lowest cost.

EIGHTEEN MODELS — 2 H.P. TO 75 H.P.

Regal Engines are equipped with high speed reversing gear. Link Belt, silent chain drive for timing gears.

REGAL GASOLINE ENGINE COMPANY

Established 1901

74-82 WEST PEARL ST. COLDWATER, MICH.

Manufacturers of REGALITE, ¾-K.W. air-cooled electric lighting plant. Write for particulars.

TANKS

For Storage of

GASOLINE, OIL or WATER

Made to Order

No matter what your tank problem, we are ready to meet your requirements for special shaped tanks in galvanized steel, monel metal or copper. Our engineering department will be glad to assist you. Also a large supply of standardized tanks in many sizes carried in stock for prompt shipment.

RUDDERS, STACKS, SPECIAL WORK GALVANIZING

L. O. KOVEN & BROTHER

Incorporated

154 Ogden Avenue **Jersey City, N. J.**

Eight English Boats Building

(*Continued from page* 43)

build. As soon as the present racing season is over it is expected that several others will place their orders. Thus the prospects are very bright for the first International race ever held in America with more than two boats from any country competing.

The dates selected for next winter's races at Miami Beach are March 25 and 26, 1930.

The complete rules for the 335 cubic inch, 21 foot International Class, follow:

RULES FOR INTERNATIONAL 5½ LITRE (335 CUBIC INCHES) CLASS

1. The match shall consist of three heats of between 15 and 20 statute miles (each) in length to be held on 1, 2 or 3 days as the local Race Committee shall specify.

2. Course shall be laid in reasonably protected waters, not less than eight feet in depth and as free from turns as practicable, but the finish shall be at the starting line. Each lap or round of the course shall not be less than two statute miles and shall be subject to approval of Contest Board.

3. The start shall be a flying start with a preparatory signal to be given five minutes before starting time. The time by seconds, one minute before the starting time, shall be shown to the contestants by means of a large clock dial mounted near the starting line. The finish of each heat will be nine minutes after the first boat crosses the finishing line. No boat will be allowed to start later than five minutes after the starting gun in any heat. Boats failing to finish before the end of each heat, shall receive no points.

4. The winner of the match shall be determined by the point system whereby each boat starting and finishing a race of a match will receive as many points as is indicated in American Power Boat Association Rule XXIX.

5. A boat to be eligible to compete shall be the bona fide property of one or more amateur members in good standing of the club it represents.

6. Competing boats shall be powered with one of the following motors:

			Cubic Inches
Chrysler	6 cylinder	3⅝x5	309.6
Gray	8 cylinder	3⅜x4½	322.2
Scripps	6 cylinder	3¾x5	331.2
Lycoming	8 cylinder	3¼x4½	298.8

Note: To this list will be added European motors which qualify.

The owner must furnish the local Race Committee with an affidavit signed by the engine manufacturer, specifying that the maximum horse power developed by the motor can in no case exceed 135 horse power. The motors which develop a greater maximum than 135 horse power will not be eligible to compete. Motors shall be stock in every particular, with the exception that changes of carbureter, piston rings, spark plugs, steering and throttle controls and self starters will be permitted.

7. Boats competing in this class shall have a waterline length of not less than 20 feet in racing trim. There shall be no other restrictions as to the hull.

8. No postponements from the advertised time of the start of the race shall be allowed for any cause except in the interest of the safety of the public or the contestants.

9. The motors in competing boats shall be equipped with an efficient method of idling.

10. No form of mechanical super-charger or other auxiliary device shall be employed to increase the compression or volume of cylinders.

11. Unless otherwise specified herein, contests shall be governed by the latest American Power Boat Association racing rules.

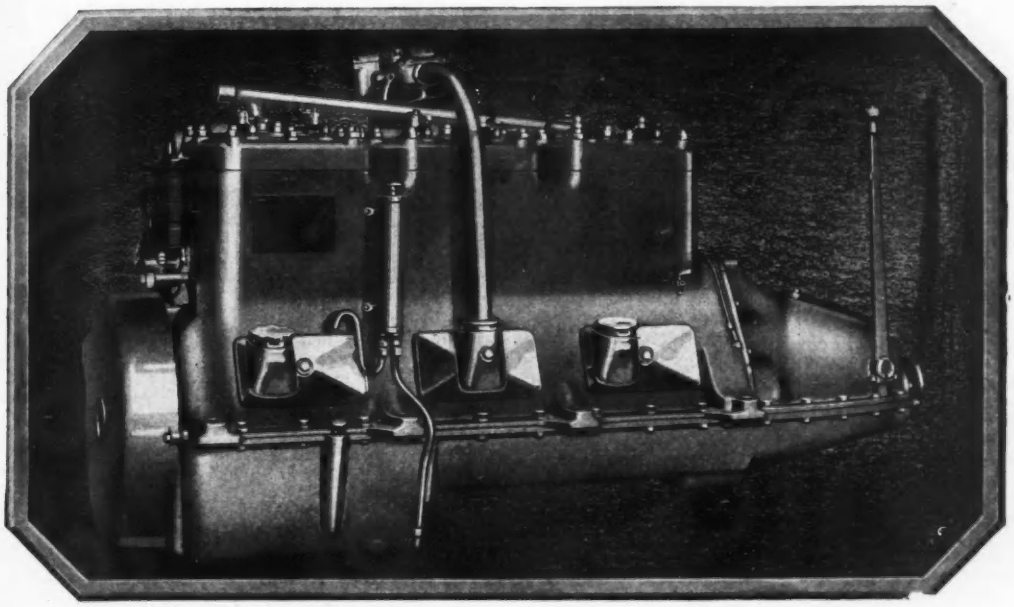
12. All turning buoys shall be passed on the driver's left-hand.

13. Commercial fuel as approved by the Race Committee shall be used.

SMITH NOW HEADS STANDARD MOTOR

Benjamin C. Smith, for over 20 years Chief Engineer of the Standard Motor Construction Company of Jersey City, N. J., has been made president and General Manager of the Company, taking up the work laid down this past winter by Eugene A. Riotte. Mr. Riotte, one of the very earliest pioneers in the Marine engine business in this country and, with his brother, the late Carl C. Riotte, founder of the Standard Motor Construction Company business, has been forced by ill health to retire. He is now in Florida, recuperating from a very long illness. Mr. Smith is developing a complete line of electric starting, light weight, reversible diesel engines for yachts and work boats.

Advertising index will be found on 3rd last page



Scripps Model 124

First Choice for the
New International Class

THE Scripps Model 124 has been designated by the American Power Boat Association as an official engine for the new 335 cu. in. International Class. Model 124 has the largest piston displacement of any stock American marine motor within the limits of this class and develops 135 h.p., the maximum power allowed.

This new class brings added interest to motor boat racing due to the reasonably low price of both power plant and hull, costing no more than a medium priced runabout.

Scripps Model 124 is a development of the famous Scripps F-6 marine engine. It has piston displacement of 331.2 cu. in. and develops 135 horse power at 3000 R.P.M. Every part is designed to endure the endless racking strain of continued full-throttle, top speed operation under the most arduous conditions.

Although Model 124 is not a racing machine its many superior features such as counterbalanced crankshaft, perfected down-draft carburetion, light weight, compactness, unbelievable flexiblity and rugged stamina will prove in International Class racing, as in other marine service, the great advantages of Scripps engineering leadership.

Write today for the Scripps catalogue.

Ten models—15 to 200 Horse Power. High speed and medium duty.

SCRIPPS MOTOR COMPANY, 5819 LINCOLN AVE., DETROIT, MICHIGAN

SCRIPPS

THE MOTOR THAT CROSSED THE ATLANTIC

Better Performance and Greater Speed

Through the use of Morse Straight-Line Reduction Gears, maximum boat efficiency and performance are insured, with the greatest possible degree of operating economy.

Morse Straight-Line Reduction Gears embody a special application of internal gearing worked out and perfected by engineers of long experience in this phase of engineering work. They operate with unusual quietness. Their efficiency is high. They embody the desirable principle of straight-line drive. In design, material and workmanship they represent the best that is to be had in the field.

Write or wire for engineering details. dimension drawings, prices, etc.

MORSE CHAIN CO.
Detroit, Michigan

MORSE
STRAIGHT-LINE
REDUCTION GEARS

MARINE BATTERIES
Willard
FOR MOTOR BOATS
WILLARD STORAGE BATTERY CO., Cleveland, Ohio

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Old Man Joe's
HARTMANN
Universal Joints
New manufactured and sold to the marine trade by Old Man Joe exclusively. Quick shipments from complete stock at all times. Send for folder on the line.
The Snow & Petrelli Mfg. Co.
19 Fox St., New Haven, Conn.

Strong
Long-Lived
Dependable

Large
Tapered
Bearings

YARD AND SHOP

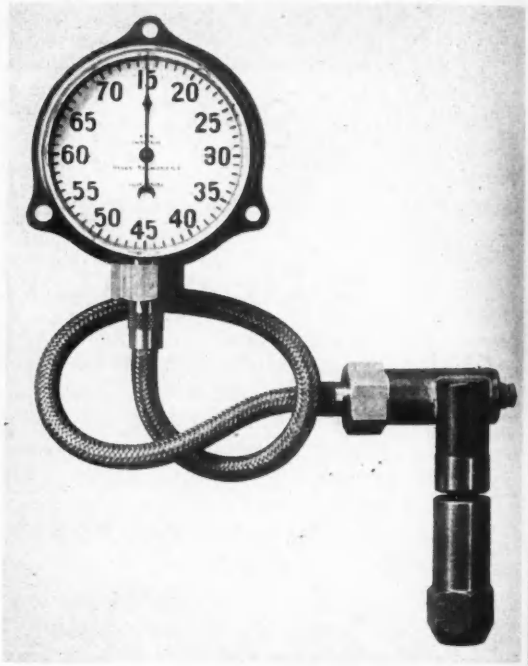
(*Continued from page 60*)

It has a natural bronze finish, with no japanning or lacquer to scale off. It is also very flexible and will permit of sharper bends, making installation handling easier.

The tachometer shaft is the important link between the motor and the instrument which indicates the revolutions-per-minute which the motor is turning up. Adverse criticism has often been drawn to the tachometer when the trouble, unknowingly, lay in defective shafting.

An interesting incident of what an important part tachometer shafting plays in aircraft was when Robbins and Kelly, during their endurance flight in the airplane Fort Worth, replaced, while in flight, a broken tachometer shaft. This was the first time that such a repair had ever been made in the air, and the replacing of the new shaft was, in part, responsible for the continued operation of the motor, and the successful culmination of the record-breaking attempt, which, by the way, has been far exceeded many times since. The development of this new improved type of shafting will fill a long-felt want in many important industries.

Coincident with the above announcement, the Consolidated Instrument Company has developed a new type tachometer for general marine use, employing the famous Jones movement with modifications to eliminate noise of operation, and to offer the marine industry a really noiseless instrument.



The improved tachometer drive developed by the Consolidated Instrument Company

SELECTING THE CORRECT PLUG

Spark plug authorities agree that no one type or make of spark plug yet developed, regardless of how good it is, will function perfectly under all conditions.

Spark plugs face two problems, fouling and preignition.

Fouling is caused by the insulator remaining too cool and evidences itself through missing of the engine.

Preignition is the result of the plugs becoming red hot and firing the mixture early, causing pinging and a sharp decrease in the engine's power.

Either fouling or preignition can be minimized by making certain of having the correct plug.

The outboard driver who experiences trouble with his spark plugs can easily remedy the trouble by using the correct type plug. For this reason the AC Spark Plug company of Flint, Mich., has just published a spark plug chart for outboard engines. This chart lists the various makes and models of outboards, together with the correct type spark plug recommended if either preignition or fouling is experienced.

The reference chart may be had free upon request.

(*Continued on page 136*)

Advertising index will be found on 3rd last page

KILL FIRE WHILE IT IS YOUNG

For runabout or 90-footer — ALFITE brings safety against Fire

Fire's invasion isn't limited to any type or size of boat. Fire picks no favorites. But, no matter what type of motorboat or yacht you own, the ALFITE System will give you sure, moderately priced protection against fire.

The ALFITE System is simplicity itself. One pull on a control lever, located *outside* the fire zone, releases fire-killing ALFITE Gas. In a few seconds the fire is out—for fire and ALFITE Gas cannot *both* live in the same space, and ALFITE *always wins.*

ALFITE Gas is stored in small steel cylinders, taking up very little room. Fixed piping distributes the gas to danger points. One simple valve seals positively against leakage from the cylinder—yet assures rapid, complete discharge when fire occurs. ALFITE Gas will not corrode metal or damage furnishing. After the fire it disappears with ordinary ventilation. There's nothing to clean up.

"One Fire is Too Many" is a booklet describing and illustrating the ALFITE System. Write for a copy. American-La France and Foamite Corporation, Engineers and Manufacturers, Dept. B10, Elmira, N. Y.

AMERICAN-LA FRANCE AND FOAMITE PROTECTION

A Complete Engineering Service

For Extinguishing Fires

You, Too, Should Use

SILVER SUDS

The amazing sudsy action

of the 33-year-old marine cleanser utterly penetrates and dissolves dirt and grease — yet, is absolutely harmless to painted surfaces, metal — and your hands. Quickly, and without hard rubbing, it brings lasting lustre — does all the varied cleaning jobs that usually call for special preparations. Before mooring your craft for the winter, clean her with Silver Suds Marine Cleanser, which will give added protection against the elements and, possibly, make costly spring conditioning unnecessary.

1 and 5 gal. pails at $2.00 and $7.50
Send 50c for trial pail.

SILVER SUDS MFG. COMPANY, Philadelphia, Pa.

Dealers and Distributors Wanted

SILVER SUDS MARINE CLEANSER

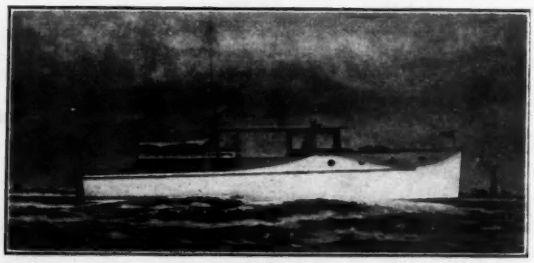
PRODUCTS FOR MARINE SERVICE

AC Instrument Panels
AC Tachometers
AC Thermo Gauges
AC Oil Pressure Gauges
AC Ammeters
AC Spark Plugs

Write for descriptive folder, giving us name of your nearest dealer

AC SPARK PLUG COMPANY
FLINT, *Michigan*, U. S. A.

MARYLAND BUILT CRUISERS



41' x 10' 8" x 2' 8"—Best construction, full equipment, Lux, Protane, screens, searchlight.
SINGLE SCREW—$8700 TWIN SCREW $10,800

HOUSEBOAT CRUISERS
Able, comfortable, plain, heavy construction, Homelite, Lux, awning, screens, searchlight. 50' x 14' x 3'—150 H.P. Mystic Model Lathrop $13,000.

RALPH H. WILEY, M.E.
OXFORD, MARYLAND

YARD AND SHOP

(*Continued from page* 134)

DIESEL POWER FOR SMALL YACHTS

The success of the Diesel engine in powering small fast pleasure yachts is attested by the performance of a new 90-foote designed by Cox & Stevens for Charles Payson of New York City. Saga is the name of the new vessel, built by Julius Peterson at Nyack, New York.

Saga has an overall length of 90 feet and beam of 15 feet and is powered with two of the new type 8-cylinder Winton Diesel engines of 300 h.p. each, which provide a speed of 1 statute m.p.h. The performance of these motors in 1500 miles of cruising at sea has been decidedly successful and contributes much to Saga's success as a fast, comfortable craft.

The 90-foot Winton diesel cruiser Saga

For her size, the boat's accommodations are unusual. In the large deckhouse living room, beautifully furnisned, as well as in the staterooms, there is an atmosphere of roominess and quiet restfulness that is a welcome innovation in a boat of this size. A special feature of the living room is the commodious observation room at the forward end. Below deck there are three double staterooms, with bathroom, two toilets, and shower. The hull is double-planked mahogany. An especially wide lounging seat in the forward cockpit is a pleasing feature

The boat is equipped with searchlight, radio direction finder, radio receiver, and signal gear. Auxiliary machinery includes a Winton Model W2, six-cylinder gasoline engine direct-connected to a 10 K. W. electric generator, fresh water pumps, sanitary pumps, and Kelvinator refrigerator.

Aquila, a modern boat designed for fishing and cruising

The cruiser Aquila, also illustrated, was designed by A. S. Reed, Jr., naval architect, and built by the Marine Construction Company, Inc., of Wilmington, Del., for A. Felix DuPont. The boat will be used for sword fishing and deep water work in the vicinity of Cape Cod. Aquila is fitted throughout with modern equipment for convenience and comfort, and is a roomy, smooth running boat—just the kind of fishing boat that appeals to the experienced fisherman.

She has a modified V-type bottom. Joiner work is teak and the bottom double-planked mahogany. There are sleeping accommodations for six and a crew of two. The fresh water tanks have a capacity of 125 gallons and the gasoline tanks 260 gallons, giving the boat ample cruising radius for her purpose. She is 49 feet overall, with a beam of 11 feet, 6 inches, and draft of 3 feet 6 inches.

Aquila is powered with a six-cylinder, 180 h. p. Winton gasoline engine, which provides a speed of 15½ miles per hour.

(*Continued on page* 138)

Advertising index will be found on 3rd last page

Chris Smith & Sons Boat Co.
Algonac, Michigan

H. B. Fred Kuhls,
Third Avenue and 65th St.,
Brooklyn, New York.

July 1, 1929

Dear Mr. Kuhls:

For Chris-Craft to have used your Seam Composition for the past six years is indeed an indication of its worth, we believe. Especially so since all the products that go into our boats are completely and thoroughly tested before using.

Each year it is our custom to re-analyze and test all materials used in Chris-Craft motorboats. We believe in this way we can best keep up with the present market and give our customers the finest there is.

The thousands of pounds of your Seam Composition which we handle annually are used entirely in the decking of our boats. Compositions are used here to provide and insure doubly dry boats. The bottoms, as you know, are double planked, not requiring a composition.

During 1929 we are using your products exclusively on all the 18 models of our Fleet, which as you remember, includes our 38' Commuting Cruiser.

With best regards, we remain,

Yours very truly,

CHRIS SMITH AND SONS BOAT COMPANY

Jay W. Smith

Jay W. Smith:vw President.

World's Largest Builders of all Mahogany Motor Boats

. . . . . and on every *Chris Craft*

Chris Smith & Sons Boat Co., Algonac, Michigan, the world's largest builders of all mahogany motor boats use Kuhls' Elastic Seam Composition exclusively in all of the 18 models of the Chris-Craft fleet. Several thousand pounds of this superior seam filler are used annually by Chris-Craft. Once each year it is the policy of the Chris Smith & Sons Boat Company not only to retest every item which enters into the construction of Chris-Craft but to find, if possible, something better. For the past six years Kuhls' has withstood these tests and has proven far superior to all other brands.

For lasting results use Kuhls'. It never becomes brittle, but retains its original elasticity indefinitely. Made in three grades—each for a particular purpose. Use:—No. 1 for deck seams. No. 2 for hull seams. No. 3 for laying canvas on decks, housing and hatches; also for canvasing and repairing canoes.

"Reach for KUHLS' instead of Pitch"

H. B. FRED KUHLS

Sole Manufacturers—Established 1889

SIXTY-FIFTH STREET and THIRD AVE. BROOKLYN, N. Y.

Elastic Flat Yacht White — *Elastic Gloss Yacht White* — *Elastic Trowel Cement* — *Elastic Deck Varnish*

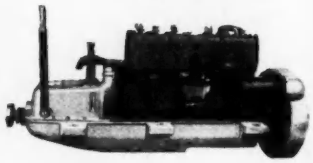
ELASTIC SEAM COMPOSITION TRADE MARK

Red Wing Thorobred
THE MOTOR WITH POWER TO SPARE

A SENSATIONAL MARINE "6"
RED WING "WARRIOR"
30-50 H.P.
Priced no higher than a good "4"

THE tremendous demand for this popular new motor has been far beyond our expectations. Its unexcelled performance has created a sensation among owners of all kinds of marine craft. Smooth running—sturdy—powerful and, due to quantity production—available at the astonishingly low price of $495.00 With Electric Starter

RED WING MOTOR CO.
RED WING, MINN., U. S. A.



The Warrior, 30-50 h.p., complete with Paragon 90% reverse gear and 2-unit, 6-volt electric starting motor and generator. Bore 3¼-inch, stroke 5-inch. Piston displacement, 230 cubic inches

Send for complete catalog showing
EIGHTEEN
THOROBRED SIZES
4 to 150 H.P.
Medium heavy duty and high speed in
1, 2, 4 & 6 Cylinders
A type for every kind of Boat.

WATER-PROOF POWER!

EVEREADY Hot Shots defy rain, waves and hard knocks. In 6, 7½ and 9 volt sizes. Sold in every port.

NATIONAL CARBON COMPANY, INC.
New York • UCC • San Francisco
Unit of Union Carbide and Carbon Corporation

Chris-Craft
specifies Valspar

Chris Smith, the world's largest builder of all mahogany runabouts, knows Valspar. He recognizes it as the one varnish that will give thorough protection from water, weather, gasoline and grease.

VALENTINE & COMPANY, 386 Fourth Ave., New York

YARD AND SHOP

(*Continued from page* 136)

AL LOOMIS GIVES HIS OPINION

Our special class of cruising sloops and cutters was scheduled to start at one-fifteen, but until twelve we lay at anchor hopefully waiting for the water barge to come alongside and fill our half empty tank. Then, since it hadn't appeared out of the fog, we decided to put ourselves on short rations and got under way. We were late and we knew it. Beating down the Thames toward Sarah Ledge buoy, we watched the minutes slip by and knew that we would be still later.

Of passing motor boats I begged a tow, hopefully and credulously. Some six or eight of these perversions of a heavenly sport were on the way to let their owners see the race start, and I don't doubt that all of them blundered around in the path of the racing yatchts when they reached the line. I was about to say that no sportsman shipped aboard motor craft—for my need was great and my thoughts were unbridled—when the small auxiliary schooner Diana, flying the United States Power Squadron flag, took our line and towed us. Blessed be the Power Squadrons. I have always been told that their members are a cut above ordinary motor boatmen, but this is the first time that I have had first-hand experience of their superiority.—*The Sportsman.*

MAYORS OF TWO CITIES RACE ON UPPER HUDSON

Troy, New York, was recently the setting for an interesting inter-city motor boat regatta between Troy and Albany. In one of the races the mayors of both of these cities were entered as contestants.

In the stock runabout race a 24-foot Hackercraft powered with a straight eight Gray marine engine, carried Mayor Cornelius F. Burns of Troy as a guest passenger and nosed out Half Moon, in which the honorable John B. Thatcher II, Mayor of Albany, was riding.

Charles A. Warren, owner of the Hackercraft, was successful in taking two of the first prizes offered to stock runabouts. Thousands of motor boat fans and racing enthusiasts lined the river banks from the Waterford Bridge to 103rd Street, North Troy, to witness the events.

The 23-foot Chriscraft runabout which won the Belgian International regatta

AMERICAN RUNABOUT WINS BELGIAN REGATTA

Chris-Craft boats placed first and second in the annual international classic in Belgium on June 15 and 16.

Of the six boats that started, representing England, Belgium and France in this handicap race, Chris-Craft boats attained extraordinary success. First place went to a twenty-eight foot stock runabout model, second to a twenty-tow foot Cadet with Chrysler engine. These were the only two American-made boats in the race, and their outstanding success is an excellent example of their speed and seaworthiness.

The race was run, it is said, under the most adverse conditions, there being a high wind as well as a considerable sea running at the time.

PIRATE WINS IN THE EAST

Pirate, a Class R sloop owned by O. K. Hunsaker of Los Angeles, California, Commodore of the Southern California Outboard Association, was the winner of the Class R championship in the recent Race Week of the Larchmont Yacht Club on Long Island Sound. Pirate was brought here from the west coast a short time ago for the especial purpose of competing in these races, and her success is quite a tribute to her sailing qualities and the ability of her skipper. She was sailed by Matt Walsh and Fox Case of Los Angeles.

(*Continued on page* 140)

Advertising index will be found on 3rd last page

No Other Boat Approaches the

HUBERT S. JOHNSON Sea-Skiff

Asea, at high speed, the Hubert S. Johnson Sea Skiff runs with remarkable ease and great stability.

WHEN you weigh the quality of its materials and standard of workmanship, when you compare its sea-ability and easy handling, when you examine the spacious double cabin accommodations and completeness of conveniences, when you learn its price, then you will know why no other boat approaches the value given in the thirty-six foot Hubert S. Johnson Sea Skiff.

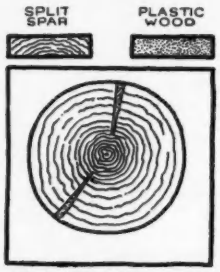
Linens, blankets, pullman curtains, cooking utensils, china, silverware and even a high grade radio set are furnished with the Hubert S. Johnson Sea Skiff. Crodon plated hardware, Monel metal shaft, Goodrich cutless bearings, Lux fire extinguisher system and many other modern improvements are regular equipment. Power is furnished by a Sterling 200 h.p. engine producing an honest, sustained speed of 22 miles per hour.

Looking forward in the main cabin which is richly finished and tastefully furnished for real cruising comfort.

Fall or Florida Delivery Reservation Should Be Placed Now

Write today for further information.

HUBERT S. JOHNSON BOAT & ENGINE WORKS
BAYHEAD, NEW JERSEY



SPAR CHECKS

for

SPAR CHECKS

Plastic Wood is an ideal filler and repair product for checks in spars and other woodwork. Not only is it almost invisible when applied after the spar is scraped, but its adhesive properties are so great that the spar is actually strengthened. To apply it properly a thin piece of wood or metal should be used to push the Plastic Wood down to the desired depth. Push in a layer at a time and allow to dry before superimposing another. The last layer should be raised above the surface and sandpapered down level with the spar.

PLASTIC WOOD

Reg. U. S. Pat. Off.

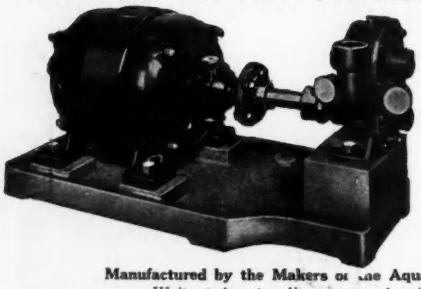
At Ship Chandlers, Hardware and Paint Stores

1 lb. can $1.00 ¼ lb. can 35 cts.

Write our Engineering Dept. for free book on Plastic Wood for boat repairs, or for advice on any specific problem.

Addison-Leslie Co., 26 Bolivar St., Canton, Mass.

HI-DUTY *Direct Connected* UNIT



Available for use as bilge pump, fuel pump, or as an automatic water pressure system to supply running water on your boat. Built in four sizes and may be had with 12, 32, or 110 volt motor. Very quiet in operation.

Manufactured by the Makers of the Aqua-Pressor

Write today for literature and prices

BOWLER, HOLMES & HECKER CO.

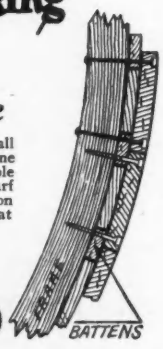
259 GREENWICH STREET NEW YORK, N. Y.

Batten Seams and Double Planking

Ferdico Aviation Liquid Marine Glue

prevents leakage and decay if used on all rabbets and mortised joints such as chine logs, bilge stringers, battens, and double bottoms. Coat these parts and other scarf and fastened joint with Ferdico Aviation Liquid Marine Glue when putting boat frames together.

There is a Marine Glue for every leak. Send for free booklet on uses of Marine Glue



L.W. Ferdinand & Co.
152 Kneeland Street, Boston, Mass.

YARD AND SHOP

(*Continued from page* 138)

INTRODUCING A NEW WATERFRONT CHARACTER

Old Man Bilge Water is the scourge of the sea, as every boatman knows. He lurks around every boat, biding his time when he can enter through a sprung seam, a stove-in-bow, through a faulty stuffing box or a score of other places.

The M. L. Oberdorfer Brass Company, manufacturer of bilge pumps, has created an imaginative figure which depicts a slimy spectre of the deep in the form of Old Man Bilge Water, clutching a hapless victim and pulling it relentlessly down to Davy Jones' locker.

In the battle against Old Man Bilge Water the Oberdorfer Company offers to boatmen an array of bilge pumps that cover every need. Heading the list is the Oberdorfer Master Automatic Electric Bilge Pump. This remarkable pumping outfit maintains a sleepless vigil over the bilges of your boat twenty-four hours a day at sea or at anchor, in fair weather or foul, night and day. It is available in 6, 12 and 32 volt units and is operated from lighting or storage battery.

The Model B Automatic Bilge Pump has new improvements that greatly increase its efficiency. This model has been used on thousands of boats and many cases are on record where damage and even loss of life have been prevented by the vigilance of one of these automatic watchmen.

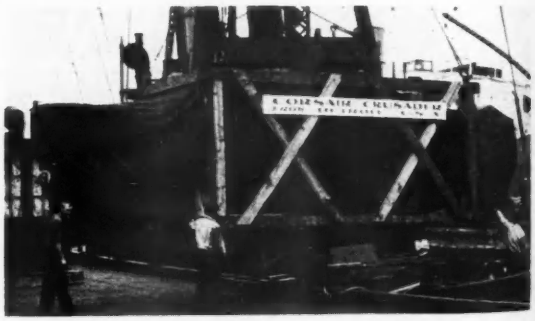
One man, alone on his boat, rammed a floating spar and stove in a plank. A bad leak developed but the Oberdorfer Automatic pump kept his boat afloat until he could get ashore. Another man had his boat wedged into the boathouse by a rising river. The Oberdorfer pump saved about $3,000 damage, according to his report. In cases of severe storms along the coast, many thank their lucky stars that they had the foresight to install these automatic pumps when they witness the havoc rendered to other boats.

The Hand Bilge Pump is a popular model for boats that are not equipped with available electric current. They are sturdily built of non-corrosive bronze and are speedy and efficient. They are also used as an auxiliary or emergency pump where motor driven pumps are used.

Oberdorfer motor-driven gear and centrifugal pumps are also extensively used for bilge pumping as well as for deck flushing, fuel pumping, water supply and similar uses.

Bronze Gear Circulating pumps are also made by this company. They are the product of fifty years of experience in the making of pumps and are available in standard types, forms and sizes for any make or model of marine motor.

Full information concerning these pumps may be obtained by writing to the M. L. Oberdorfer Brass Company, 2200 Thompson Road, Syracuse, N. Y.



A Corsair Crusader built in Detroit, being loaded on a steamer at New York for shipment to Eduardo Resta, Buenos Aires, a prominent dealer there

THIRD PRESIDENT'S CUP REGATTA

September 13 and 14 are the dates set for the Third President's Cup Regatta to be held at Washington under the auspices of the Chesapeake and Potomac Power Boat Association. Nineteen events for all classes of boats will be included in the program, the first race being the President's Cup Race in the Gold Cup class, and succeeding events taking care of stock runabouts of various sizes, hydroplanes and displacement boats, and outboards in all classes and divisions.

Persons desiring to enter their boats in any of the events should file an entry blank before September 10 with L. G. Leech, 619-B Southern Building, Washington, D. C.

(*Coontinued on page* 142)

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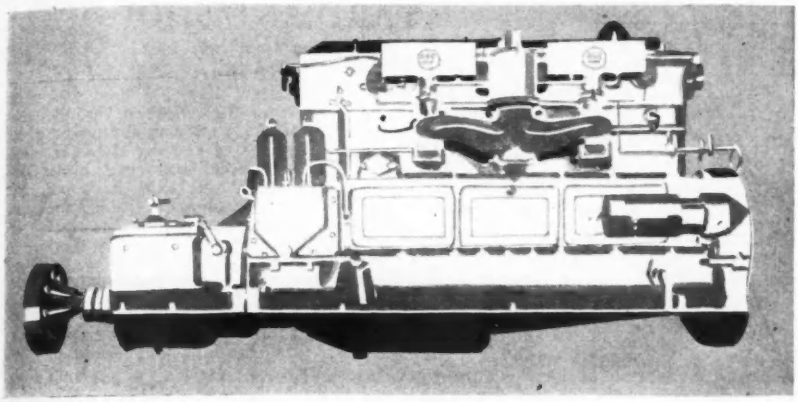


Hall-Scott's soundness is built into each part!

The things that Hall-Scott brings to your boat are rooted deeply in the Hall-Scott engine.

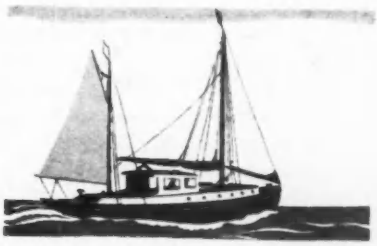
On the surface it seems very simple! An extremely efficient high speed engine transmits power to your wheel, in proper ratio, through a perfectly operating reduction gear. You have an unparalleled smoothness and flexibility of operation. Every ounce of the engine's horsepower finds its way into your shaft.

But an expert process builds that! That extremely efficient engine and gear were designed by some of the finest engineers in the world. Dependability was built into every part of them by patient, careful craftsmen . . . craftsmen who have earned their skill through years in the exacting field of aviation engines.

And one thing more . . . Hall-Scott is an G.C.F. product. To Hall-Scott's builders, G.C.F. offers all its vast resources . . . its years of experience in an infinite variety of manufacturing and engineering . . . its ability to purchase with unusual economy.

Speed boat, cruiser or runabout . . . whatever boat you have or may be building . . . power it with Hall-Scott. There isn't a smoother, sturdier or more dependable engine!

You can go over the Hall-Scott engines at any of the G.C.F. marine salons listed below. Or we will send you complete information, if you will write.



HALL-SCOTT MOTOR CAR COMPANY

Division of American Car and Foundry Motors Company • 217 West Fifty-Seventh Street, New York, N. Y.

Hall-Scott Engines are on display at these G.C.F. Marine Salons: NEW YORK—G.C.F. Marine Salon, 217 West 57th Street. Other showrooms are: BOSTON—Noyes Marine Sales Co., 305 Congress Street . . . DETROIT—G. C. F. Marine Salon, 500 East Jefferson Avenue . . . CLEVELAND—The Yacht Sales & Service, Inc., 18123 Detroit Avenue . . . SAN FRANCISCO—S. C. Kyle, 427 Rialto Building . . . CHICAGO—Ward A. Robinson, 8 S. Michigan Avenue . . . WILMINGTON, DEL.—American Car and Foundry Co.

DACHEL CARTER
Twin 45 Screw

A REVELATION of custom beauty in a standardized boat at a surprisingly low cost only begins to describe the Dachel-Carter "45" whose rakish lines, extreme completeness and luxuriously fitted living quarters are characteristic of the finest custom work. It has full one-man operating controls—large aft stateroom with two spring berths—roomy forward cabin sleeping four—complete galley—two toilets—capacious semi-enclosed bridge. Careful designing, finest materials, plus painstaking workmanship and low price make the Dachel-Carter "45" an outstanding value. Investigate this boat now. Write today for further particulars or accept our invitation to make a personal inspection of this wonderful cruiser under construction at our plant.

DACHEL-CARTER BOAT CO., Inc.
BENTON HARBOR MICHIGAN

YARD AND SHOP

(*Continued from page* 140)

FIRST DIESEL TRAINING STATION

Toms River, N. J., on Barnegat Bay, has been selected as the logical site for the project of the Industrial Institute, Inc., 26 Court Street, Brooklyn, N. Y., in the establishment of an institution for the practical training of men for Diesel engineering, including aviation and other courses in engineering subjects. The sponsor of the project is Julius Rosbloom, well known author of Diesel & Oil Engineering Hand Book and other popular technical books. The Architect is Walter S. Schneider, Suite 626, General Motors Building, New York.

The beautiful display of trophies for the Gold Cup regatta at Red Bank on display in Ovington's window on Fifth Avenue

SMALL STOCK RUNABOUT OFFERED

Dart Boats, Incorporated have added a new 18½-foot model to their line of all mahogany runabouts.

This little craft is powered with a six-cylinder engine and is capable of 30 miles an hour.

It has a self-starter, regular automobile controls, positive reverse and, in fact, is almost a miniature of the larger Darts.

It is expected that this new model will provide a stepping-stone for the boat enthusiasts from the outboard equipment to the larger speed boats and cruisers.

The new 18½-foot Dart runabout follows the design of the larger boats

DETROIT'S ONE ACE

Last month we wore sackcloth and tossed ashes in our hair; now it's time to put aside vain regrets and take stock of our occasions for pride. We're out of the premier North American motorboat race, and that's that! But we're up to our ears in 1929's two greatest international regattas, and, thanks to Gar Wood, have a chance to make 1930 one of the greatest years in the Detroit River's history of aquatic sports.

While master-craftsmen were busy rebuilding Gar's Miss America VII and constructing a new boat, the eighth of the Miss America dynasty, for the Harmsworth race here in September, he slipped away to Europe on an unannounced mission. Now we know all about it. He has sent Miss America V, an 80-mile-an-hour hydroplane, to Italy. There.

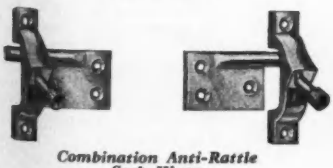
(*Continued on page* 144)

Advertising index will be found on 3rd last page

MARINE
ERICO-KAINER
SPECIALTIES

A. C. F. 47-foot cruiser, a product of the American Car & Foundry Co., equipped with ERICO-KAINER Marine Specialties.

Spoke Type Ropeless Steering Gear



Combination Anti-Rattle Sash Hinge

The Hall-Mark of Good Boats

ERICO-KAINER Marine Specialties are acknowledged by leading boat builders to be the most advanced type and the finest made. These superior marine fittings are used as regular equipment on A. C. F. cruisers, built by the American Car & Foundry Company. Experienced boat buyers recognize Erico-Kainer equipment on a craft as the hall-mark of master boat construction.

Erico-Kainer products are manufactured of the best cast bronze and nickel silver handsomely polished and finished. The Erico-Kainer line includes steering gears for all types of boats, remote engine controls, streamline running lights, interior electric fixtures, patented portlights, searchlights and numerous other specialties that enhance the comfort and safety of boating.

Write today for catalogue and price list of ERICO-KAINER Marine Specialties

Column Spark, Throttle and Clutch Control

ERICO-KAINER COMPANY

763-767 MATHER ST., CHICAGO, ILLINOIS

ZENITH *high-efficiency* FILTERS

No matter what the make or size of your gasoline or Diesel engine we can supply you with the correct type of filter to remove dirt and water from your gasoline, fuel or lubricating oil.

Your Engine Deserves Clean Fuel

The patented Zenith filtering element is made up of alternately spaced brass washers and separators clamped tightly together. It has the strength and rigidity of a solid brass bar—yet the filtering spaces are 3 times finer than 60 mesh wire screen. Its smooth, peripheral surface sheds dirt and water readily. ***Zenith filters are easy to install, efficient in action and easy to clean. They are sturdy and durable—no fragile parts.***

Protect your carburetor jets or injector nozzles and fuel pumps with Zenith filtration. If you frequent rough off-shore water, strong current or tides, install the Duplex type for maximum safety. You can clean it without stopping the engine.

Send for your copy of catalog and dealer's name. Let us know your filtering problem. No obligation.

ZENITH-DETROIT CORPORATION
Manufacturers of Zenith Carburetors and Filters
DETROIT MICHIGAN

Heavy Duty Filter—for heavy duty gasoline or small Diesels. Built with glass or brass bowl.

Below—Heavy Duty Duplex—two independent units—can be cleaned alternately without shutdown.

YARD AND SHOP

(*Continued from page* 142)

at Lido-Venice, during the first half of September, she will try for several trophies in the International Motorboat Competition, chief among them the cup offered by H. R. H. the Crown Prince of Italy. That regatta is Europe's leading motorboat event this year. When Mussolini's envoy was here, he promised in return for a Wood entry at Lido and Italian entry at Detroit for the 1930 Harmsworth—if D. Y. C. still held the trophy. Half the pledge has been fulfilled, and with Gar driving his new defender against Miss Carstairs' craft in September, the coming of a challenger from *Il Duce's* country next year seems assured.

One of Gar's brothers, probably Phil, will drive Miss America V at Lido. She's the boat, you'll recall, that successfully defended the Harmsworth trophy against the French Excelsior-France in 1926, and ran second to Miss America VII in last year's race with Miss Carstairs.

While in Germany, Gar Wood visited the Dornier-Wahl plant at Friedrichshafen, on Lake Constance, and decided to take to the air. He bought two flying yachts. One is a huge craft that will carry 25 guests, and has a master's cabin so spacious as to permit of a full-sized bed. The other is a smaller ship for an African hunting trip he will take with Dr. Inches next winter. Both will be powered with American motors.

If it weren't for Gar, Chicago could have all the water in the river. We wouldn't need it, at least this year.—*D. Y. C. Main Sheet.*

MATTHEWS ANNOUNCES NEW MODELS

Information has just been released by The Matthews Company of Port Clinton, Ohio, on their new 1930 series of stock cruisers.

Probably the most important feature of the new line is the addition of the Double-Cabin Sport Cruiser on both the Matthews 38 and the Matthews 46 hulls. This smart new play-boat, with a possible maximum speed of 30 miles per hour and a standard speed of 20 miles per hour, answers every need for speed or sport, and in addition, its two cabins contain all of the conveniences and comforts necessary for protracted cruising for a party of six. Particular attention has been given to the comfortable and pleasing interior, and with the general refinement of fittings and equipment, the Matthews Double-Cabin Sport Cruiser carries the apeparance of the high-priced custom-built boat.

The new Matthews double cabin sport cruiser, in both 38 and 46-foot hulls

In addition to the one new model being announced by The Matthews Company, S. J. Matthews, president, says that with the increasing demand for Matthews stock cruisers, and the necessity for plant additions, the 1930 series will incorporate but two hulls within it—namely, the Matthews 38 hull and the Matthews 46 hull, and the five popular models produced heretofore within the Famous Family Matthews 38 will be duplicated in the Matthews 46. These models are the Single-Cabin, Stock Cruiser, the Double-Cabin Stock Cruiser, the Stock Day Cruiser, the Stock Sport Cruiser, and now the new Double-Cabin Sport Stock Cruiser. The complete line consists of ten stock models, with twenty-four arrangement plans, within two hulls, and the speeds vary from 15 to 30 miles per hour.

Following the effort made last year by The Matthews Company to take counsel with well-known interior decorators for the finishing of the interiors of the various Matthews Cruisers, this year the complete line will show very plainly the effect of expert advice on upholstering, interior finishing, equipment and fittings.

Advertising index will be found on 3rd last page

Chrysler Marine Engines

A. C. F. Cruiser-runabout

A. C. F. Cruiser-runabout. Length, 27 feet. Powered with Chrysler Imperial Marine Engine.

Wheeler Junior Playmate

Wheeler Junior Playmate. Length, 26 feet. Speed, 25 m. p. h. with Chrysler Marine Engine. 28'—32' and 36' "Playmates" are also Chrysler powered.

Corsair Cruiser

Corsair Cruiser, 30 feet by 9 feet, 3 inches. Standard equipped with Chrysler Royal Marine Engine.

chosen to power these distinctive boats . . .

Among the original and distinctive boats of the year, one cannot fail to include the A. C. F. Cruiser-runabout, the Corsair Cruiser and the Wheeler Junior Playmate.

Each is notable for some striking departure, in design, construction or performance, that adds to the comfort, security and greater enjoyment of motor boating.

It is significant that the builders of these boats chose Chrysler Marine Engines as best suited to express their ideas of a perfect co-ordination of boat and power plant.

* * *

Address your request for information to the Marine Engine Division, Chrysler Corporation, Detroit, Michigan, or to any of our distributors.

ATLANTIC RADIO & MARINE CO., INC.
Boston, Mass.

MARINE EQUIPMENT & SUPPLY CO., INC.
Philadelphia, Pa.

YACHT & MOTOR SALES CORP.
Wilmington, Calif.

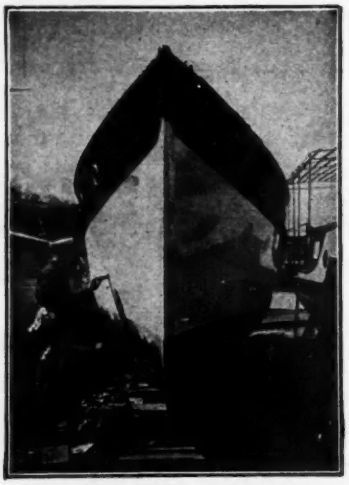
HALL-SCOTT MOTOR CAR COMPANY
New York City and Seattle, Wash.

J. H. HUTCHINSON
Alexandria Bay, New York

SYRACUSE MOTOR CAR CO.
Marine Division, Syracuse, N. Y.

Chrysler MARINE ENGINES

CHRYSLER MOTORS PRODUCT



1889 40 Years of Successful Paint-Making 192

"New Jersey"

Top and Bottom Paints for everything that floats

Everybody knows "New Jersey's" Three Leaders

Insist on getting these goods

"New Jersey" Ship and Deck Paint

The most satisfactory paint for use on spars, decks, floors, stairs, top sides and general woodwork. Used on canvas, wood or metal. Not affected by salt water.

"New Jersey" Copper Paint

An absolute protection against barnacle teredos and vegetable growth. Very smooth and provides a fast racing bottom.

"New Jersey" Yac White

The most practical fo ish for a yacht. Dri with a rich velvety fi ish and is absolutel permanent. Can b washed and scrubbed.

Write for copy of "Davy Jones' Locker" booklet—tells you how to paint a boat. Will be sent free.

NEW JERSEY PAINT WORKS

Wayne and Fremont Streets HARRY LOUDERBOUGH, INC. Jersey City, New Jersey

Sold by all marine supply stores—send for color cards and name of nearest dealer

Winners of Events, Regatta at Portland, Maine, July 19-20

Class A—Division 1

1. Bunty II—P. H. James
2. Moby Dick—Chas. A. Harris
3. Jil—J. Halsey Gulick

Class A—Division 2

1. Miss Atlantic—J. E. Wilkinson
2. B-46—D. Haskins
3. Hot and Bothered—Arthur Sutherland

Class B—Division 1

1. A-29—Harris S. Woodman
2. B-27—J. N. Sullivan
3. Bunty II—P. A. James

Class B—Division 2

1. D-123 Ironing Board—Carl Mason
2. A-18—Dick Frost
3. B-31 Flat Iron—Douglas Haskins

Runabouts Not Over 125 h.p.

1. #7 Dart—Geo. Merchant, Gloucester, Mass.
2. #2 Dart—F. Wigglesworth
3. #14 Chriscraft—A. G. Frost

Runabouts Not Over 150 h.p.

1. #3 Dart—Frank Wigglesworth
2. #2 Dart—J. E. Wilkinson
3. #7 Dart—Geo. Merchant

(concludes first day of racing)

Class C—Division 1

1. L-11—G. S. Speed, Peaks Island
2. A-401—M. S. Dick
3. N-3—Paul Sawyer

Stock Runabout—200 h.p.

1. Betty—L. D. Pierce, E. Greenwich, R. I.
2. Dolphin—Walter Moreton
3. Niobi II—Robert Warner

Stock Runabout—82 h.p.

1. Down Easter—H. M. Payson
2. Down Easter—Phillips Payson

Cruisers

1. Dhila—Norman I. Black
2. Salty—W. Scott Libbey
3. Corsair—F. Wigglesworth

Ladies' Handicap

1. Mrs. Krim driving Dart
2. Miss M. Gannett driving Baby Gar
3. Helen Hentchel driving Betty (Hacker)

151's

1. Wee Scamper—Steve Whitney
2. Tired Tim—Sam Dunsford
3. Miss Fit II

Displacement Free-for-All

1. Betty—L. Pierce
2. Dodge—Ross Maddocks
3. Dart—F. Wigglesworth

Grand Free-for-All

1. Miss Maine—D. A. Curtiss
2. Wee Scamper—Steve Whitney
3. Betty—Lou Pierce

Coast Guard Cutters

1. #157
2. #191
3. #192

Class C—Division 2

1. B-34—Three Star—W. J. Snadecki
2. LS-1—Lee Goff, Norway, Maine
3. J-66—C. Johnson, Lake Hopatcong, N. J.

Class D—Division 2

1. B-38—F. Blainey
2. B-23—Baby Whale—H. R. Maddocks
3. B-85—Zip II, R. Stearns

Class D—Division 1

1. Torture—H. Gulick
2. Miss Muffitt II—H. W. Brock

Family Runabouts—Outboards

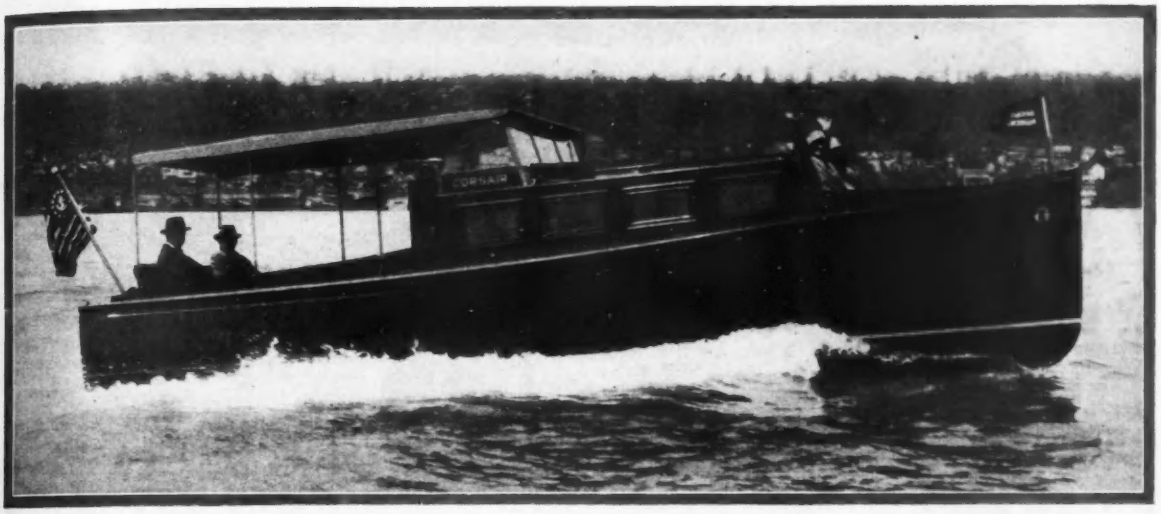
1. A-39—H. Gulick—Lyman
2. Jacob Dunnell—Ludington

Grand Outboard Free-for-All

1. B-38—Frank Blaney
2. B-23—H. R. Maddocks
3. LS-1—Lee Goff
4. B-3—J. E. Wilkinson

Advertising index will be found on 3rd last page

CORSAIR

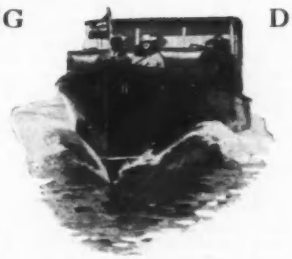


THE CORSAIR *Cruisader* is a distinct departuer from the common place in power cruisers. It combines—each in its proper proportion—every element essential to complete boating satisfaction. For speed alone — other types of boats are faster. For sheer power—you may find it greater elsewhere. For beauty, for comfort — some craft are built to emphasize these single factors to the exclusion of all else. It is only in the *Corsair* that speed, power, beauty, comfort and color melt into one perfect symphony of seaworthiness. Its lines are graceful as a phantom ship—yet they sacrifice no comfort. Its speed is adequate —yet not so great that the hull will shake and shiver as you tear through the water. Its power is all you could ever ask. Its comfort will be a constant surprise, its ample accommodations a growing pleasure, its seaworthiness a welcome asset in all kinds of weather.

The *Corsair* ideally combines every desirable feature of boats from the runabout to the houseboat into one craft that will delight you every minute you spend aboard. Write today for complete illustrated catalog No. MB9, or call your nearest dealer for a ride.

CORSAIR BOAT COMPANY

1030 BUHL BUILDING DETROIT, MICHIGAN



USE SILVER SUDS — $2.00 GALLON
IDEAL TO CLEAN ALL THINGS MARINE

Stewart Warner Model 314-B $18.00
Complete with 60-inch flexible shaft
Longer shafts, 60 cents extra per foot, over 60 inches

Tachometers *for* Outboard Motors

A necessity for tuning up an outboard motor to its highest R.P.M. (revolutions per minute). Easily installed. Head may be mounted on any part of boat or instrument board. When ordering specify make and model of motor.

Miniature Steering Wheel

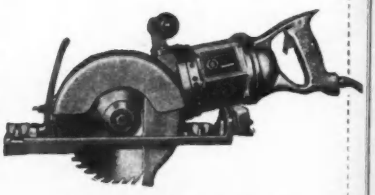
This wonderful little symbol represents a steering wheel in miniature, measuring ⅞ in. across the spokes. The rim is accurately turned and drilled, and is made of genuine Porto Rican cocoa-bola, dark red in color and finished with several coats of lacquer. Spokes and hub are heavily plated 18 karat gold.

Price $1.50

Trimount Rotary Hand Pumps

Ever Dependable

Pump No. 00, Pipe size ¾-1, $24.00
Pump No. 0, Pipe size ¾, 29.00
Pump No. 1, Pipe size 1, 46.00
Pump No. 2, Pipe size 1¼, 57.00
Other Models, capacities 100 to 5000 gal. per hr.



Black & Decker Portable

Electric Saws

"With the pistol grip and trigger switch"

Light, comfortable, easy to handle. Designed for cross cutting and ripping, unusually sturdy in construction, very powerful, fully adjustable and will not overheat under most gruelling conditions. No factor of safety has been overlooked, the saw blades are enclosed in telescopic guards, affording absolute protection. You will find this saw ideal for any work where the hand saw was formerly used. Furnished for 32, 110, 220 and 250 voltages.

6" — 1¾" depth of cut $ 95.00
8" — 2½" depth of cut 135.00
10" — 3¼" depth of cut 165.00

DISCOUNT TO DEALERS

TOPPING BROTHERS

159 VARICK STREET, NEW YORK

AMERICAN MOTOR BOAT RECORDS

(*Continued from page 20*)

Class E, Division II

Ludington, driven by J. Dunnell, at Worcester, Mass., May 30, 1929. Ludington boat, Johnson engine. Speed 40.36 m. p. h. (5)

Six Miles

Class B, Division II

Blue Streak, driven by H. G. Ferguson at Elsinore, Calif., July 28, 1929. Built by Lake Elsinore Boat Works. Johnson engine. Speed 40.54 m. p. h.

Class C, Division I

Blue Streak IV, driven by Chuck Hall, Lake Elsinore, Calif., July 28, 1929. Built by Lake Elsinore Boat Works, Johnson engine. Speed 37.75 m. p. h.

Class C, Division II

Blue Streak IV, driven by H. G. Ferguson at Lake Elsinore California, July 28, 1929. Built by Lake Elsinore Boat Works, Johnson engine. Speed 40.63 m. p. h.

Class D, Division II

Blue Streak IV, driven by H. G. Ferguson at Lake Elsinore, California, July 28, 1929. Built by Lake Elsinore Boat Works, Johnson engine. Speed 43.06 m. p. h.

Ten Miles

Class C, Division I

Red Shadow, driven by H. Bloomfield at Lake Winnebago, Wis., July 28, 1929. Built by Century Boat Company, Evinrude engine. Speed 30.74 m. p. h.

Class B, Division II

Full Quart, driven by John Maypole at Lake Winnebago, Wis., July 28, 1929. Built by Ramsey Boat Works, Johnson engine. Speed 33.24 m. p. h.

Class C, Division II

Blue Streak II, owned by L. Baugham, driven by H. G. Ferguson, at San Diego, California, Dec. 16, 1928. Built by Holt, Evinrude engine. Speed 38.59 m. p. h (B)

Class D, Division II

Charletta, driven by Charles B. Tice, at Lake Winnebago, Wis., July 28, 1929. Built by Century Boat Company, Johnson engine. Speed 40.04 m. p. h.

Fifteen Miles

Class B, Division II

Blue Streak, driven by H. G. Ferguson at Lake Elsinore, California, July 28, 1929. Built by Lake Elsinore Boat Works, Johnson engine. Speed 40.40 m. p. h.

Class C, Division II

Blue Streak IV, driven by H. G. Ferguson, at Lake Elsinore, California, July 28, 1929. Built by Lake Elsinore Boat Works, Johnson engine. Speed 40.31 m. p. h.

PROPER DISPOSITION OF THE NATIONAL EMBLEM

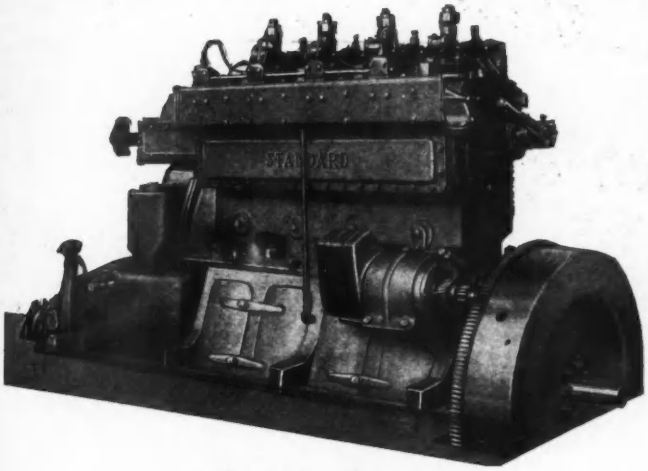
The question of the proper method of disposal of an American flag that has outlived its period of usefulness is often discussed. The problem has so often been raised that it was considered important enough to get a ruling from an officer of the United States Army.

To quote the rule as laid down by the Army: "Colors and standards now in the possession of organizations will be concontinued in use until no longer serviceable. Old or worn-out flags should not be used either for banners or any secondary purpose. When a flag is in such a condition that it is no longer a fitting emblem for display, it should not be cast aside nor used in any way that might be found disrespectful. If not preserved, it should be destroyed as a whole, preferably by burning or some other method lacking any suggestion of irreverence to it as a military emblem." This rule should apply also to the disposition of flags by private citizens.

Walter I. Joyce, Director of the National Americanization Committee of the Veterans of Foreign Wars of the United States, gets so many inquiries about the use of the American flag that he has prepared a folder on the subject. Among other things, he states, in reference to the cleansing or washing of the flag, the following: "There certainly can be no harm done by washing or cleansing our flag providing it is done at a person's own home and is not sent out to a laundry or any place where it might be used disrespectfully."

The two problems discussed above undoubtedly have been raised very frequently in yacht clubs which properly fly the national emblem ashore and the information given by these authorities will probably prove of value.

SPECIFY THIS DIESEL ENGINE



For Your New Boat . . . or To Replace Gasoline Engines

No Gas Vapor
Greater Reliability

Our Yacht Diesels are Upholding That Standard Reputation For Service

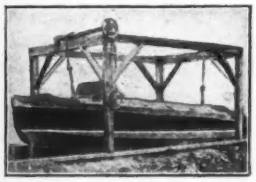
Electric Starting
Minimum Vibration
—
Reliable
Economical

LET US QUOTE YOU

STANDARD MOTOR CONSTRUCTION COMPANY
178 Whiton Street Jersey City, N. J.

STANDARD DIESELS

ALGONAC BOAT HOISTS



Hand hoists make very good means for laying up your boat. Immediate delivery on standard model hoists. Write for information.

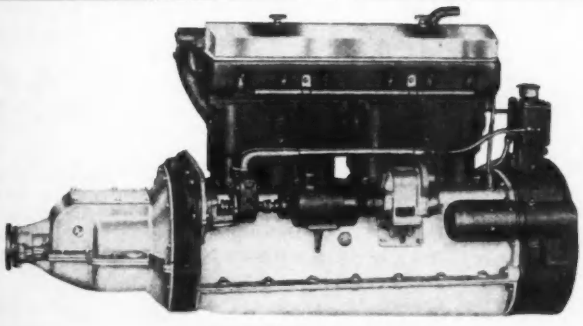
Hand . . . and . . . Electric

MONNIER BROS., INC. ALGONAC, MICH.

Represented by the Leading Boat Dealers in the Following Cities:

Chicago, Ill.
Lyon, Miss.
Oshkosh, Wisc.
Galveston, Texas
Milwaukee, Wisc.
$115. to $250.
Minneapolis, Minn.
Calumet, Mich.
Miami Beach, Fla.
Toledo, Ohio
Cleveland, Ohio

We still have some very good territories open for live dealers



BRENNAN DeLuxe Six
Four Sizes—60 H.P. to 125 H.P.

A Fine Motor for Fine Boats
Brennan DeLuxe Six

FOR consistency, maximum efficiency and economy in power plants for runabouts, fast cruisers or express commuters, single or twin-screw, you can select no finer power plant than the BRENNAN DeLuxe Six; Four sizes, 60—90—100 and 125 H.P. Brennan superior marine engines are available in eleven models both four and six cylinders, 15 H.P. to 200 H.P. for boats up to 75 feet.

Boat Builders and Engine Dealers! Send now for our Attractive Trade Proposition.

BRENNAN MOTOR MANUFACTURING COMPANY
500 East Water Street Syracuse, New York
Reliable Since 1897
Write today for catalogue.

RUSSIALOID

Standard for Chris-Craft Upholstery

Exposure to wind, weather and moisture demands unusual durability, and the makers of the well known Chris-Craft have found that RUSSIALOID upholstery material meets the high standard of quality they have set for all products used in the manufacture of their boats.

Available in a wide variety of beautiful patterns, there is a RUSSIALOID color for every type of marine trim.

THE PANTASOTE COMPANY, Inc.

250 Park Avenue, New York

CALENDAR OF COMING EVENTS

August 31-Sept. 2—Detroit, Mich., British International Trophy Races. —W. D. Edenburn, 5-218 General Motors Bldg., Detroit, Mich.

September 1, 2—Kansas City—St. Louis Marathon—Kansas City Outboard Motor Boat Club.

September 2—Fall Regatta, Larchmont Y. C., N. Y.

September 2—Rutherford Yacht Club - Outboard races.

September 2—Barnegat Bay, Sailing races of Barnegat Bay Yacht Racing Asso. for Thacher, Stanger and Middleton cups.

September 2—Third Annual Labor Day Regatta, Lake Elsinore, California—D. Mackay, Lake Elsinore, Cal.

September 2—American Lake, near Tacoma, Wash.—B. A. Anderson, Seattle, Wash.

September 2—Mullica, New Jersey.

September 2—Fox Lake, Illinois.

September 2—Traverse City, Michigan —I. C. Murray, Grand Traverse Boat Club, Traverse City, Michigan.

September 2—International Championship, Lake Minnetonka, Spring Park, Minn.—S. Miller, Northern Research Industries, Minneapolis, Minn.

September 6, 7—Barnegat Bay Y. R. A. cruise to Little Egg Harbor Yacht Club at Beach Haven and regatta there.

September 7—Detroit Y. C. Sweepstakes—Ivan Kirlin, 1240 Free Press Bldg., Detroit. Michigan.

September 7—Margate, Longport, N. J —O. H. Adams, Longport, N. J.

September 7, 8—Central Div. Championship Regatta, for Outboards and MacDonald Trophy — Columbia Yacht Club, Chicago, Ill. — Geo. Hoehn, 333 No. Michigan Blvd., Chicago, Ill.

September 7, 8—Cruising Club of America—Jeffrey Lodge Auxiliary Race, Boston Chapter.

September 7-15—Venice, Italy, International Motor Boat Regatta.

September 8—Sheepshead Bay Yacht Club Ocean Race for Cruisers—45 Nautical Miles—P. J. Downey, Sheepshead Bay Y. C., New York.

September 8—Passaic River Yacht Club, Hackensack River Station—Outboard Regatta.

September 8—New England Championships, Wollaston, Mass.—F. Wigglesworth, 20 Brookline Ave., Boston, Mass.

September 8—Cruiser Championships, Anchor Yacht Club, Bristol, Pa.—F. Von Nieda, 3309 River Ave., Camden, N. J.

September 13-15—President's and Secretary of the Navy's Cup Regatta, Washington, D. C.—Wm. A. Rogers, Woodward Bldg., Washington, D. C.

September 14—Regatta, Riverside and Westville Y. C., Essington, Pa.—F. Von Nieda, 3309 River Ave., Camden, N. J.

September 14—Mays Landing, N. J.

September 15—Cruiser Race, Camden Trophy—Riverside Yacht Club, Essington, Pa.—F. Von Nieda, 3309 River Ave., Camden, N. J.

September 17—Margate, Longport, N. J.—D. H. Adams, Longport, N. J.

September 20—Eastern Division Outboard Championship, Middletown, Conn.—E. McNulty, Middletown, Conn.

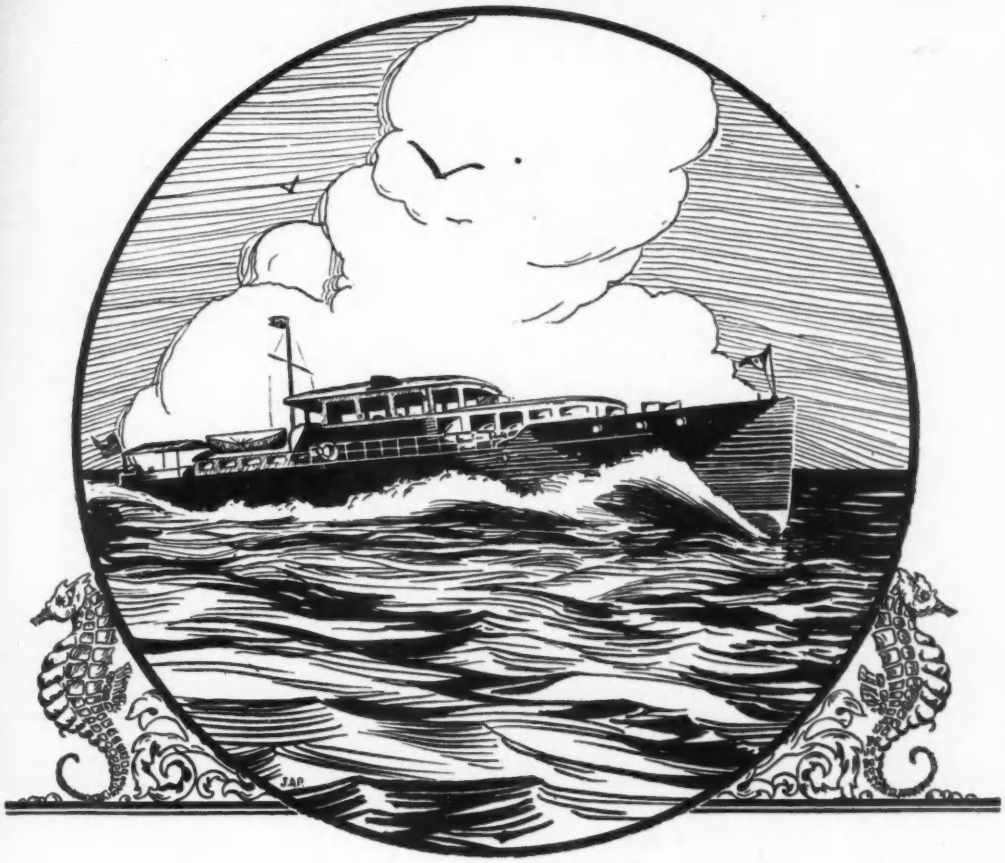
September 21—Bay View Long Distance Race, Detroit, Mich.—George A. Haas, 2033 Park Ave., Detroit, Mich.

September 22—Lake Hopatcong Outboard Club — Outboard Regatta — Headquarters Hotel Sunnyside, Lake Hopatcong, N. J.

September 28—Rutherford Yacht Club —Outboard races.

October 4, 5—Eastern Outboard National Championship, Boston, Mass.—F. Wigglesworth, 20 Brookline Ave., Boston, Mass.

Advertising index will be found on 3rd last page



EMPIRE MARINE OIL

A Grade for Every Purpose

High speed motors roar — pleasure craft skim lightly over the surface — great, majestic cruisers push through relentless waves with steady driving force. All different engine types—different lubrication problems but all deserve the finest care. EMPIRE MARINE OIL, refined from 100% pure Pennsylvania crude oil, by actual test gives greater engine protection — greater power and longer service than any other marine oil known. There's a grade of EMPIRE especially refined to meet every possible demand including the extreme loads and heavy strains imposed by Diesel engines.

Dealers Use This Coupon!

Write today for exclusive distributor's proposition.

Name .....

Address .....

PERMIT NO. 98

Guaranteed 100% PURE PENNSYLVANIA OIL

PENNSYLVANIA PETROLEUM PRODUCTS CO., INC.

PROVIDENCE, RHODE ISLAND

FLEETWING 40

$10,875

To the Showroom—

153rd Street and Hudson River
New York City
Seventh Avenue Subway to 157th Street
Auto entrance at 158th Street,
under Viaduct
Telephone Billings 7445

The striking beauty of its lines, luxurious appointments and the sturdy finished excellence of its construction, makes the Fleetwing Forty the outstanding cruiser of the day. In its choicely decorated cabins, two toilets, bridge deck and airy after-deck, you will find ample accommodations for seven persons.

An exclusive Fleetwing feature, the spoon bottom construction, assures smooth riding in any weather. The power plant, a vibrationless 115 H.P. Fleetwing Buda, gives a speed of 14 miles per hour.

FLEETWING YACHT AND SHIPBUILDING CORP.
FRANK V. BORICK, President

Get Your Copy Now!

on **"PERKO"** *Products*

Sixty-four pages of description and illustrations, showing the complete line of "PERKO" products in running lights, (with patented re-buibing features) binnacles and marine hardware, equipment, etc.

Write immediately for our new and attractive booklet No. 48 (sent free).

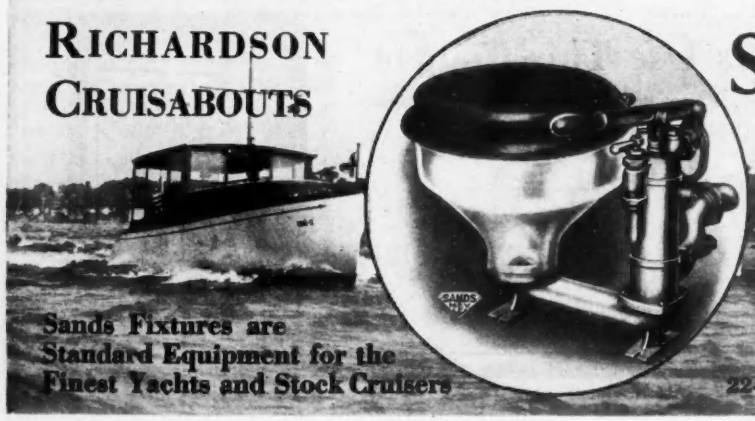
PERKINS MARINE LAMP CORP.
1942 Pitkin Avenue, Brooklyn, N. Y.

MOTOR BOATING

CAN BE HAD AT *YOUR* NEWSSTAND

MAKE SURE OF YOUR COPY BY ASKING YOUR DEALER TO RESERVE IT EVERY MONTH

RICHARDSON CRUISABOUTS



SANDS Plumbing Fixtures

Sands Fixtures are Standard Equipment for the Finest Yachts and Stock Cruisers

A. B. SANDS & SON CO.
22-24 Vesey Street New York City

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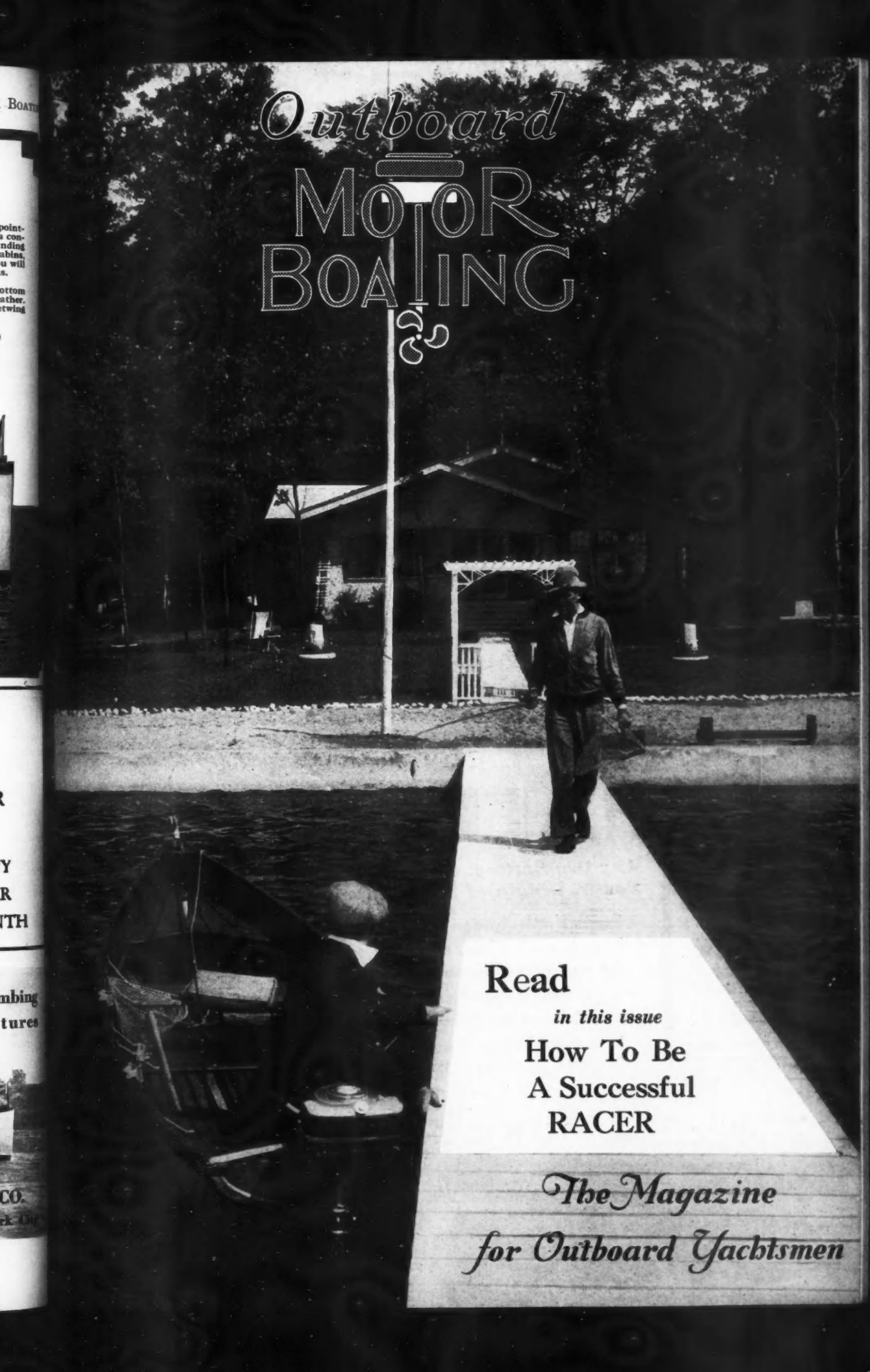
Outboard
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A Successful
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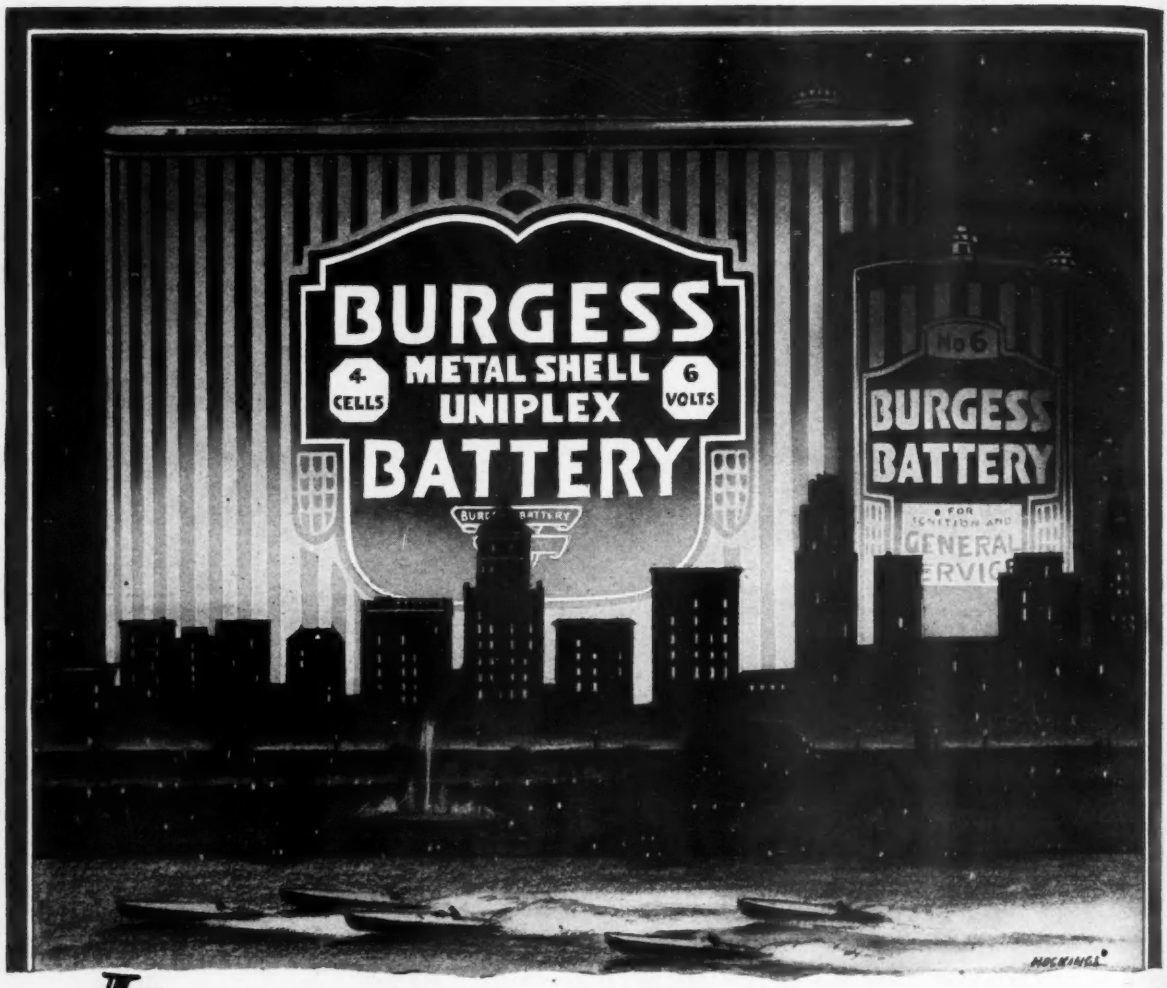
The Magazine
for Outboard Yachtsmen



It CHALLENGES

Any Dry Battery, of Equal Size . . . to Equal Its Capacity, Power, Length of Service, Dependability and Uniformity

Uniplex
Armored by a steel jacket. Weather-tight and shock-proof.
6-volt size
$2.30
7½-volt size
$2.70
9-volt size
$3.25

No. 6 Dry Cells
—for general ignition service
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Burgess Uniplex Ignition Batteries are the foremost choice of speed-boat champions. Time, experience and results have proved them the most dependable and the most reliable . . . the best that can be had. The qualities that make these batteries the choice of champions are the qualities most vital to pleasure and enjoyment in all motor boating. Insist on Burgess Uniplex Ignition Batteries.

BURGESS BATTERY COMPANY, General Sales Office: Chicago.
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Advertising index will be found on 3rd last page

Outboard MOTOR BOATING

The Magazine for Outboard Yachtsmen

FIFTY-SEVENTH ST. AT EIGHTH AVE.,
NEW YORK, N. Y.

Edited by
CHARLES F. CHAPMAN

SEPTEMBER, 1929

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NO END TO NEW RECORDS

OUTBOARD regattas are such frequent occurences and the establishing of new American Records take place at almost every one of these. It is difficult to keep proper track of them as quickly as they are made and broken. During the previous month a number of new records were set at various race meets, among which was a new Class A, division 1 Mile Trial record established by Charles Harris at the Regatta at Augusta, Maine, on July 22, 1929. He was able to drive his Herbst boat with its Lockwood Ace to a record of 25.96 m. p. h. as a mean of the six runs and this now becomes a mark in this class. Another record at the same regatta was that for the Mile Trial made by Millard Jackson who drove his Elsinore boat with an Evinrude engine to a new mark of 41.14 in class C, Division I. This supersedes an earlier record by practically a mile and a half per hour. The class C, Division 2 Mile Trial record also fell on July 21 when R. A. Smith drove his Ashbridge boat with its Evinrude engine to a new mark of 41.01 m. p. h. at Cross Lake, Louisiana.

In competition, records also fell and the regatta at Cross Lake was responsible for setting two new five mile marks. In class B, Division II, C. D. Loe drove his Ashbridge boat, Miss S & L, with a Johnson engine at a speed of 36.45 m. p. h. and in class C, Division I, the old mark was beaten, and Joe Herrin was able to drive Rigor II, his Ashbridge Flyer with an Evinrude engine to a new record of 37.42 m. p. h.

The marks for six miles also fell and Blue Streak, driven by H. G. Ferguson, an Elsinore Boat on the Lake of the same name in California, was successful in attaining 40.54 m. p. h. with a Johnson engine. A larger boat, Blue Streak IV, driven by C. Hall on the same day, July 28, set a mark in class C, Division I with a Johnson engine of 37.75 m.p.h. This same boat, driven by H. G. Ferguson with a Johnson engine bettered the Class C, Division II record for six miles by almost 7 miles per hour and reached a speed of 40.63 m.p.h. With a larger engine it also shattered the Class D, Division II record by reaching a speed of 43.06 m.p.h.

Over longer distances, the fifteen mile mark was also set in classes B and C, Division II. Blue Streak, the same boat which set the six mile mark reached almost the same speed for fifteen miles and set the mark at 40.40 m.p.h. In the larger class, C, Blue Streak IV, again driven by H. G. Ferguson did almost as well by reaching 40.31 m.p.h. These boats were built by the Lake Elsinore Boat Works and powered with Johnson engines in the several classes.

OUTBOARD AHOY!

THIS new speed indicator tells you at a glance your speed.

It shows your speed under all conditions of load, trim, carburetor and spark adjustment, etc. And it helps *keep* your boat up to its greatest efficiency.

You can install it in a few minutes, instantly remove it and reinstall it as quickly. Trouble-proof, dependable. Once you use it, you will never go without it.

National Marine Speed Indicators

Outboard Models $15.00 each { **R up to 40 M.P.H.** / **S up to 60 M.P.H.**

Send today for booklet to The National Lock Washer Co., 40 Hermon St., Newark, New Jersey

MoToR BoatinG 9-29

THE NATIONAL LOCK WASHER CO.,
40 Hermon St., Newark, N. J.
Please send me booklet describing the outboard model of your National Marine Speed Indicator.

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NAME

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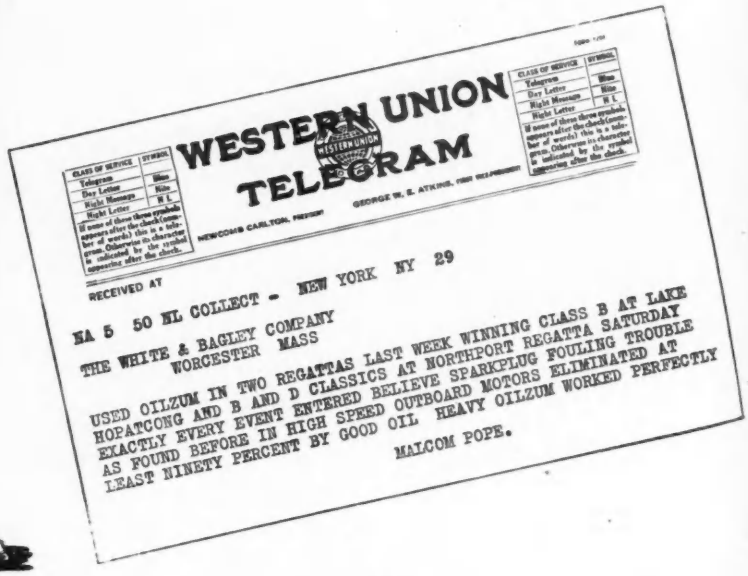
ADDRESS

Hand in Hand, the Winner's Cup and Oilzum

Every day adds to the list of Oilzum Marine Victories



WESTERN UNION TELEGRAM

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CLASS OF SERVICE — SYMBOL
Telegram — Blue
Day Letter — Blue
Night Message — N L
Night Letter

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THE WHITE & BAGLEY COMPANY
WORCESTER MASS

USED OILZUM IN TWO REGATTAS LAST WEEK WINNING CLASS B AT LAKE HOPATCONG AND B AND D CLASSICS AT NORTHPORT REGATTA SATURDAY EXACTLY EVERY EVENT ENTERED BELIEVE SPARKPLUG FOULING TROUBLE AS FOUND BEFORE IN HIGH SPEED OUTBOARD MOTORS ELIMINATED AT LEAST NINETY PERCENT BY GOOD OIL HEAVY OILZUM WORKED PERFECTLY

MALCOM POPE.

Oilzum gives you the closest approach to perfect lubrication. Reduces maintenance costs. Improves motor performance.

Oilzum means minimum wear, smoother operation.

Oilzum is the cream of 100% pure Pennsylvania oils. Every quart meets our standard. Dealers: You will be interested in prices, specifications and territorial protection. Your inquiries will receive prompt attention.

Manufactured by The White & Bagley Company, Worcester, Mass.

Oilzum MOTOR OILS LUBRICANTS

Oilzum

America's Finest Oil

Advertising index will be found on 3rd last page

Outboard
SEPTEMBER MOTOR BOATING 1929

Harold Chapman and Jim Smith battling for a lead at the start of the first Newark to Midland Beach race

A RACE OUTSIDE STATEN ISLAND

Twenty-nine Fast Outboards Start in Strenuous Contest But Only Ten Succeed in Completing the Course

OUTBOARD fans were treated to one of the most thrilling events of the season on July 20, the occasion being the First Annual Newark to Midland Beach Outboard Motor Boat Race for the James S. Graham Trophy. This race was sanctioned by the American Power Boat Association and is the first one to be held under the auspices of the Middle Atlantic Outboard Association, formerly the New York Outboard Motor Boat Association.

Twenty boats roared across the line in a perfect start when Commodore Arthur Bobrick fired the gun at 5:30 P.M. in front of the Newark Motor and Yacht Club. Fair weather and an offshore wind made the run down the Passaic River, Newark Bay, Arthur Kill and Raritan Bay an ideal test, not only for boats and motors, but of driving skill as well.

Big Ben piloted by Harold Chapman of East Moriches, New York, covered the distance in the re-

(*Continued on page* 184)

Big Ben's owner receiving the Graham trophy, first prize in the Newark-Midland Beach race. Ben Hallock, builder; Fred Horenburger, timer; James S. Graham, donor; W. E. Willis, scorer; H. L. Chapman, winner, and William Burke lend prestige to the occasion

Julius Herbst, veteran racing driver and builder of outboard boats

M. Rosenfeld

THE SECRET OF SUCCESS IN RACING

Julius Herbst, Holder of Many Trophies and Outboard Records, Tells How Races Are Won

BEFORE I start I want to tell you that I was pretty much of a greenhorn at this racing business. I had seen only a few races—had never even been in a racing outfit. If you would have asked me to tell the difference between a journal bearing and a rotary valve I would have said, "Yes, I think that McGraw and the Giants are the best bets for the pennant."

So you can see I was pretty dumb. But I had the bug and I had it bad. I wanted an outfit right away and I wanted to get out and win some races.

I had been corresponding with a friend of mine down in Wilmington, North Carolina, who had had the bug for a long time. His letters sounded as though this town was the Washington, D. C., of the outboard world. Surely, I thought, he would know of someone to tell me how to get out and win races. So I wired him:

"GOT OUTBOARD RACING BUG BAD STOP HAVE YOU ANY FRIENDS WHO CAN GIVE ME LOW DOWN STOP KNOW NOTHING ABOUT IT BUT CAN DRIVE AUTOMOBILE FLY A KITE AND WILLING TO LEARN"

The next morning I got a reply:

"DRIVING AUTOMOBILE HAS NOTHING TO DO WITH IT BUT FLYING KITE MIGHT HELP ALTHOUGH DON'T KNOW HOW SUGGEST YOU TRY PING PONG"

And I wired right back:

"PING PONG NICE GAME TOO BUT WHAT OF IT I WANT TO RACE REALLY SERIOUS THIS TIME"

Well that got him.

"YOU WIN HAVE JUST THE MAN JULIUS HERBST WHO BUILDS RACING BOATS AND WHO HAS MORE CUPS AND TROPHIES THAN TIFFANY HAS DIAMONDS HE CAN GIVE YOU LOWEST OF LOW DOWN"

So that was how I came to take the night train to Wilmington, North Carolina, where they eat and sleep outboard racing.

* * *

"There are really only two things you have to do to win outboard races," said Julius, twisting an unlighted cigar into the corner of his mouth. "The first of these is to be thoroughly prepared before you ever think of entering a race. The second is—use a little, good old common sense after you get in the race.

"Of course you can't win every race. There is bound to be a certain percentage of bad luck strewn along the way, but not nearly as much as some drivers howl about.

"The first and most important thing is being prepared. Well, that doesn't tell much. But let's go into detail. First, let me tell you a story about how preparedness won one of the biggest races in the country this year. The man in (*Continued on page* 182)

Carroll Photo Service

H. G. Ferguson was second in the Free-for-all. A slight accident cost him first place

RACING IN THE HIGH SIERRAS

The Ubiquitous Outboards Invade Huntington Lake and Race Seventy-two Hundred Feet Above the Sea

By COMM. DAVID MACKAY

AN outboard regatta, sponsored by the Motor Boat Association of Central California, was held at Huntington Lake, July 14. Huntington Lake is situated on top of the world at an altitude of 7,200 feet, in the heart of the high Sierras, seventy-three miles east of Fresno. One is instantly charmed with its beauty; it is six miles long and from one-half to a mile wide. It is one of several lakes created for the development of hydroelectric power by the Southern California Edison Company.

The Lake Elsinore contingent of three cars and two boats travelled four hundred miles; sixty on the steep mountain roads of the Sierra range and the last three ascending two thousand two hundred feet from Big Creek to the summit.

One important element of a successful regatta was lacking in the Huntington races, and that was competition. And the reason for this was the fact—not intimated in the telegraphic invitation nor on the program—that the races were for Division III drivers or the unlimited class, who are at liberty to add carbureters, raise compression, counterbalance driveshafts, open ports, etc. This important question was discussed in the Southern Association and the conclusion arrived at that the only fair basis for competition was among the various makes of strictly stock motors. Competition in mechanics leads inevitably to the special factory job, which, as was the case with the automobile, will soon kill the sport. The thrill of a race is created by keen competition on an equal basis more especially where mechanical power is employed, and not by one contestant obtaining some secret advantage and running a mile in advance of the field. Under these conditions competitors soon become discouraged and lose interest in the sport; and it is anything but sport for them whereas to the onlooker it is an uninteresting and somewhat tiresome procession. The thrill of the horse race comes from the basic equality—they all have the same four legs to run with and cannot very well add an extra one for the occasion.

Hence, Scandal, an Evinrude-powered Elsinore hull, with an added carburetor and otherwise hopped up, owned and driven by Clark Anderson of Fresno, did the I-Win act in three successive heats of the Class C event; he had no competition.

However, the same thing happened in the Class B event, when Johnny Adams in his Crandall Comet with a Sea Horse stock motor did the three-straight act without serious competition; this will sometimes happen even in stock races.

The best race of the day was the free-for-all twelve miles round-the-lake event and that was attended with grief for both winners. In this event there was some competition between two Johnson Sea Horse 32 motors both mounted on Elsinore hulls, who pulled half a mile ahead of the field. Ferguson in Blue Streak had a good advantage until something happened at about seven miles, when a ribbon on his life jcket was sucked into the air horn, and a small portion cut off by the piston and carried on to the point of a spark plug; this made a very exciting race, the shorting of the plug just slowing down Blue Streak enough to allow Ketchup to catch up, pass and win by several lengths.

But Capt. Applesauce (Frank W. Helm Jr.) made a sharp turn after crossing the finish line and his motor jumped off the transom, damaging the deck and transom, but the tiller cables held it up and it was soon recovered from the lake.

Several spectacular wing-dings were staged, the first at the finish of Class B heat one, when Chic Lee, who, by the way, is the first outboard driver we have seen who hails from China's Celestial Empire, after finishing a good third, turned too short and flipped into the icy water. (*Continued on page* 186)

Bill Frey, with the Super Elto Quad which helped him win the 200-mile Marathon at Peoria

BILL FREY—A VETERAN RACER

Winner of 200-Mile Peoria Marathon Entered His First Race Thirteen Years Ago

IF outboard racing fans knew that W. M. (Bill) Frey, who crossed the line first in the National 200-mile Marathon held at Peoria, Illinois, on July 4 was a race boat veteran with thirteen years experience, they might conclude that he was pretty well along in years. As a matter of fact, he entered his first race at the age of 14, and so the National Marathon champion is today only 27 years old.

Frey was born at De Pue, Illinois. At the age of 10 the family moved to Peoria. His hobby was boats. Before and after school and during the summer vacations he could be found along the river bank and at the various lakes. It seemed as if something in his blood led him to the water. It seemed as if boating, swimming and other kinds of water sports attracted him as much as water attracts a duck.

Dr. A. C. Strong, Burlington, Iowa, owner of PDQ, a four-cylinder inboard racing boat with a speed of 25 miles an hour, took a particular interest in young Frey, and it was with the greatest delight that Frey sometimes took the wheel and piloted the boat in speed trials. Dr. Strong was an inveterate boating enthusiast, being a charter member of the Western Boating Association, which to an extent, is the predecessor of the nationally known Mississippi Valley Power Boat Association of today.

Among other men who took an early interest in young Frey, was Finley Bailey, builder of many champion boats. Among these were Famous, Cadillac IV, all of the Meteors, Doc's Wonder Boat, Little Star, and many others. In those days Bill's main job was to operate an oil pump by (*Continued on page* 188)

The Century Cyclone Uniplex which Bill Frey finds most reliable and speedy

Friction in marine engines and outboard motors is motorboating's greatest handicap. It causes undue wear and tear on all moving parts, thereby reducing R.P.M.'s and cutting down of the efficiency of the motor.

The Smoothest Oil ~ ~ ~ in Oildom

Keeping the engine in perfect condition is almost entirely dependent upon the lubricant used. Motorboat engines are under their best performance when Krect Oil is used.

Krect Oil is ideal for breaking in a new motor, and is the smoothest oil in Oildom for continued use, after the motor has been thoroughly broken in.

It creates a smooth hard wearing pellicle upon all of the wearing and bearing surfaces, which positively reduces friction from 20% to 40%, easing up the tightness of the fit, with the resultant increase in speed, smoother operation, cooler motor, less vibration and greater R.P.M.'s.

Krect Oil makes hard starting, stiff motors easy to start and the smooth, glassy pellicle is not affected by seepage of gasoline and will not break down under terrific heat.

Krect Oil is now being used extensively by both engine manufacturers and individuals and has been subjected to severe tests, both on the water and in the laboratory, and in every case from 5% to 10% more R.P.M.'s have been obtained.

Krect Oil is the correct lubricant for motorboat use. Order a five gallon can, test it, and convince yourself that it is all that is claimed for it.

KRECT PROCESS CO., 6554 HAMILTON AVE., DETROIT, MICHIGAN.

KRECT OIL

C. M. Scull, Ventnor City, N. J., winner of the $6,000 Sir Thomas Lipton Trophy on August 10 and 11

LIPTON TROPHY WON BY C. M. SCULL

Valuable Outboard Prize Won by New Jersey Driver Who Defeats Many Stars in Three Heat Race

By FRANKLIN H. BATES

NORTH and South met in the classic $6,000 Sir Thomas Lipton trophy race, finale of the second annual Philadelphia Outboard Regatta August 9 and 10, when the outboards gathered from far and wide to fight for the premier outboard cup of the country, on the placid waters of the Schuylkill River.

For the second year the coveted trophy went to a New Jersey boat and skipper.

C. Mulford Scull, of Ventnor City, N. J., heralded as the best in South Jersey, and winner of many victories in his own section, won the cup, driving his little home-made cigar-shaped black hull, Shooting Star, to close victories in two of the heats, and he finished second in the third.

Scull scored 1,161 points to win the trophy.

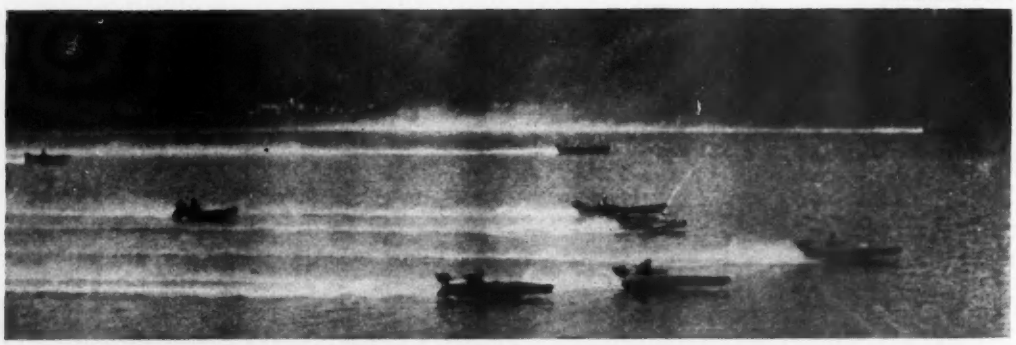
Shooting Star measures exactly 10 feet 6 inches from bow to stern, and carries a big Johnson Sea Horse, which lifts her bow far out of the water. It was an ideal craft for the unusually smooth and glasslike waters of the Schuylkill, and the absolute absence of wind on that ideal race course boxed in by trees of Fairmount Park, left the boats battling nothing but one another.

Scull cherishes his victory. For a year ago he journeyed to Philadelphia with ambitions of winning the Lipton trophy, but only covered 100 yards of the first heat, when the stern of his boat appeared to suddenly give way, and a stream of water gushed in. To avoid sinking he had to beach the boat, and he was out of the race. Allen Brothers, of Lake Hopatcong, N. J., with Impish II, won the trophy. The Allens were again entered to defend their trophy, with a new boat, Harmony. However, the boat won Class D Division 1, but quit after the first heat of the Lipton cup race.

Scull's battle was with a southern boat, from down in Dixie, but the tiff simmered down to a bow-and-bow race in the final heat, and Scull had the trophy. The final margin was 111 points.

The runner-up was F. L. Collier's Three Star, from Hampton, Va., scoring a total of 1050 points, with a first place, a second place, (*Continued on page* 180)

International Newsreel



Start of the race for the Sir Thomas Lipton Trophy on the Schuylkill River at Philadelphia

THIS IS THE AGE OF ALUMINUM

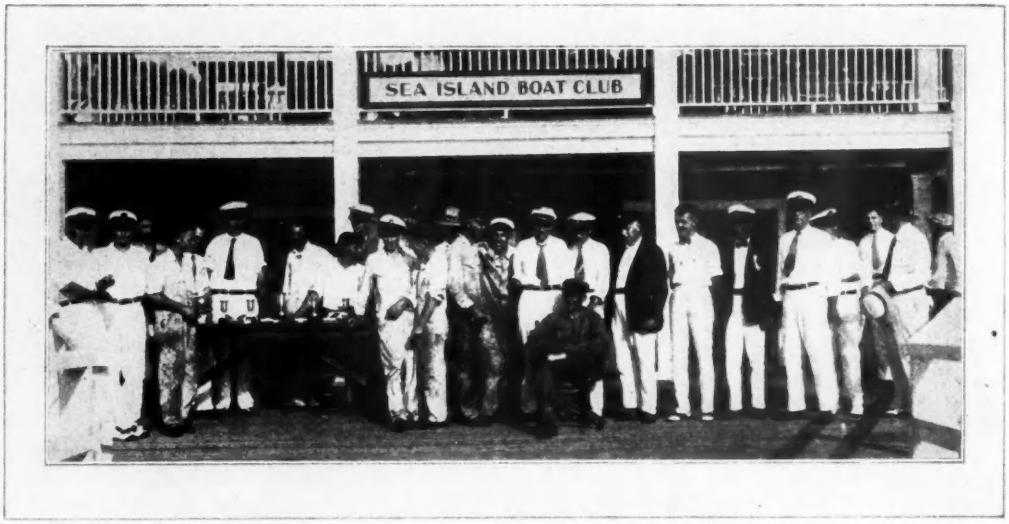
..AND LEAVE THE WORLD .. BEHIND

Off into the sunset. The slap of the waves, the soft sigh of the wind, and the steady hum of the motor. A happy crowd, with voices ringing in a mellow old refrain, or all alone, while the shadows slip astern. Those are moments the outboard brings. ¶ If it were not for aluminum, you would never know these pleasures, for outboard motors are made possible by the light weight and great strength of aluminum alloys. These motors are light. They are rugged and powerful. They are portable. They are moderate in price and economical to run. They are everything that you could ever desire in a convenient power unit—because of these strong aluminum alloys. ¶ LYNITE 195 heat-treated aluminum casting alloys are unusually strong and tough and have an exceptional resistance to shock and salt water corrosion. LYNITE pistons, forgings and heat-treated castings are used by the great majority of manufacturers because they stand up so well under hard usage and high speed. Since they are the choice of practically all the leading engineers, your safest guarantee of satisfaction in the motor you buy is to make sure that its vital parts are made of LYNITE.

ALUMINUM COMPANY OF AMERICA

PITTSBURGH, PA.

ALUMINUM ALLOY PISTONS, RODS, HEAT TREATED CASTINGS AND AUTOMATIC SCREW MACHINE PRODUCTS



The officials and winning contestants at the Sea Island Club

SEA ISLAND'S OUTBOARD REGATTA

Thousands of Spectators, Famous Drivers, and Ideal Weather Conditions Contribute to a Very Successful Meet

THE Sea Island Boat Club of Saint Simons Island, Georgia, staged on July 18 what is considered to be the best motor boat regatta ever conducted in the south during the summer season. Over 4,000 spectators lined the banks of Frederica River to watch thirty-three contestants fight for the trophies and cash prizes in the five events comprising the regatta.

The Sea Island Boat Club, in front of which the races were run, is beautifully located at historical Gascoigne Park, at the seaward end of the motor causeway from Brunswick to Saint Simons Island and Sea Island Beach. The river at this point is 1,000 feet wide and well sheltered, insuring protection to the tricky racers that participated in these events.

The regatta was sanctioned by the American Power Boat Association who sent officials to supervise and check all times recorded, making them all official.

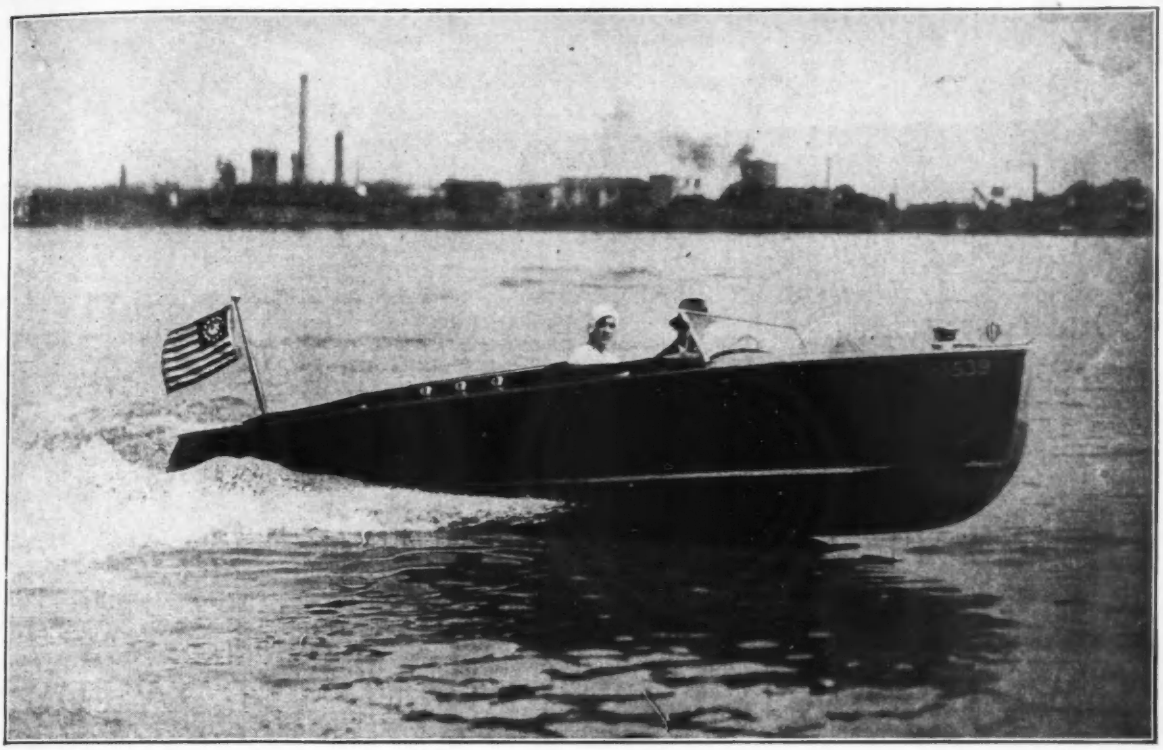
The first event was a four-mile, two-lap race for Class B stock outboard motors. Nine contestants were entered in this race which was won by George Cost of Birmingham, Alabama, at an average speed of 33.8 m.p.h. Second place was won by Julius Herbst of Wilmington, North Carolina at 33.64 m.p.h. and Lucian Whittle of Brunswick, Georgia, was third with 32.87.

The Class C race was a four-mile event in two laps and was also won by Cost at a speed of 33.88 m.p.h. Whittle placed second in this event at 33.1 m.p.h. and W. B. Tingley of Birmingham was third at an average speed of 32.87.

Nineteen contestants were entered in the third event, which was a six-mile race in three laps open to all classes of stock outboard motors. This proved to be a very fast race in *(Continued on page 186)*

Comm. McKinnon presents H. M. Fraser with the Championship Cup

Julius Herbst of Wilmington receives the Sea Island Boat Club Trophy



HERE is an unretouched photograph of the beautiful new 18½ foot Dart. Looks just like the larger Dart models, and has the same exceptional qualities of smooth riding, seaworthiness and additional speed per horsepower. All mahogany with a six-cylinder inboard motor that will go 30 miles per hour. Can be operated easily by anyone who drives a car. Regular automobile type of steering and controls, self-starter and positive reverse gears. If you live or vacation on any lake or river, you will add beyond measure to your summer's enjoyment by owning this new Dart Runabout. For commuting, fishing, pleasure jaunts or extended trips, there is no small boat to be compared with it. No cranking, no mixing of oil with gas, no fussing . . . just press the starter and away you go for a new thrill in motor boating. The price is $1595.00 f. o. b. Toledo. And purchase can be made on our convenient deferred payment plan.

DART

DART BOATS, *Incorporated* TOLEDO, OHIO

NEW YORK OFFICE, 11 W. 42ND ST. CHICKERING 5611

Play Boy, built by J. B. Parker and A. Mannassas of Montgomery, Alabama, from plans published in MoToR BoatinG

THE MONTH WITH THE OUTBOARDS

Items of Particular Interest to Followers of the Sport

BUILD A BOAT

WORKING from plans published in a recent issue of MoToR BoatinG, J. B. Parker of Montgomery, Alabama, writes us that he has completed the construction of Play Boy, a Baby Buzz design from the Build a Boat Series.

Mr. Parker states that the plans were so clear that at no time was he at a loss as to exactly how to proceed and he feels that his boat has proved decidedly successful from every standpoint.

Play Boy is to be used on Martin Lake, the largest artificial lake in the world, 760 miles in circumference, and on account of the great number of submerged snags close to the shore, construction was made somewhat heavier than specified in the plans. White oak was used for the frames, the bottom planking made a bit heavier, and the chine was built up of two pieces, the outer one white oak. This substitution of heavier material resulted in adding a few pounds to Play Boy's total weight, but despite this, Mr. Parker says that a Sea Horse 16 motor has no difficulty in pushing it right out of the water to a point where the boat planes to perfection.

OUTBOARD MOTOR INDUSTRY SHOWS GREAT INCREASE

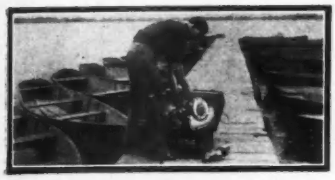
One of the most rapidly expanding industries in America today is the manufacture of outboard motors. Figures which have recently been compiled indicate that with the exception of the radio, this industry tops the list of those growing in popularity and size.

During the past decade the outboard motor has received a distinct place in American life. Thousands upon thousands of people have answered the call of the outdoors, and have found the trail to pleasure, and helpful recreation, (*Continued on page* 168)

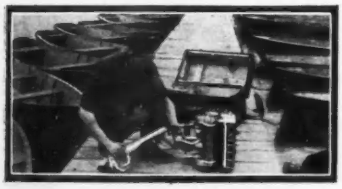
Loretta Turnbull, driving Sunkist Kid III was the Class C winner at Santa Barbara's July 4 meet

SPORTSMEN Sure Welcomed THE NEW CAILLE COMPANION

Takes Apart Like a SHOT GUN



Easy to transport—can be readily carried wherever you go.



Compactness with extra power and new detachable feature.

Easy to attach to any kind of boat—anyone can do it.

The new Caille Companion! The outboard motor sensation of the year! Everywhere sportsmen, cottagers, vacationists, fishermen are acclaiming it. Here's a motor that gives you power, speed, dependable service. And because it is small, light, compact and takes apart like a shot gun, it is easy to carry wherever you go. Anyone can attach it, start it, drive it. The Caille Companion complete (including waterproof ignition built into the fly-wheel) has all of the fine Caille features that mean carefree, happy outboard motoring. Ask your dealer for a demonstration. See for yourself why the Caille Companion is just the kind of an outboard motor you've always hoped to own—a motor for sport, all-round pleasure and safe, enjoyable, speedy water transportation.

A PERFECT MOTOR FOR TROLLING

Note auxiliary mechanical pump which makes trolling speed possible, together with a sufficient water supply always to keep motor cool.

Easy to start—a twirl of the wheel works like magic.

Powerful enough to give the whole family a real good time.

And for the fisherman, too, there's no motor in a class with it.

The Caille Companion has far more power than has ever before been built into a motor of its size. It has power and to spare to send a boat-load of passengers skimming across the water.

The compactness and detachable feature of the Caille Companion are innovations in outboard motors of today. And think of it, the whole motor, including ignition, weighs about 40 pounds.

CAILLE MOTOR COMPANY, 6214 Second Blvd., Detroit, Michigan

Distributors and dealers throughout the United States

Canadian Distributors: Canadian Fairbanks-Morse Co., Ltd., Montreal, Que. Export Department: 116 Broad Street, New York City

Kindly send me full information on the Caille Companion, together with the name of the nearest Caille dealer.

Name_____

Address_____ City_____ State_____

THE MONTH WITH THE OUTBOARDS

(*Continud from page* 166)

Interior of the new Caille showroom in Detroit, largest of its kind in America

lead from the crowded dusty highways to the quiet calm of some placid lake. The outboard motor has enjoyed a phenomenal growth in popularity and use, during the past few years. Besides the thrill which it gives the pleasure seeker, More Fun than Flying, according to the Evinrude slogan, many unique uses for this compact power package have been found.

Motor boating as a thrilling sport has been enjoyed by pleasure seekers for years, but only within the past two years has this sport been within the reach of the moderate wage earner. The advent of the outboard motor made possible all the enjoyment of the high priced speed boat for a cost much less for a boat and motor than that of the lowest priced car. Outboard motor powered boats costing only a few hundred dollars are driving family runabouts and cruisers 25 to 35 miles per hour, in increasing numbers yearly.

An indication of the increasing acceptance of the outboard motor is found in the increased sales volume of the Evinrude Division, Outboard Motors Corporation for the first quarter of 1929. Evinrude Division reports sales in the first quarter of 1929 of $316,000 againt $192,000 for the same period last year. Unfilled orders at the end of the first quarter amounted to 12,300 units, as against 6,800 units at the end of the first quarter in 1928.

DETROIT'S NEW OUTBOARD SHOWROOM

What is conceded to be the largest showroom in America devoted exclusively to the exhibition of outboard motors and outboard motor boats opened its doors to the public on July 17, when Arthur Caille, vice president of the Caille Motor Company, admitted the throngs of people who were invited to the opening of the Caille Motor Company retail showroom at Second Boulevard and Amsterdam Avenue, Detroit.

"If we weren't already sure that outboard motor boating has now come into its own, we would have been convinced by the crowds who visited our showroom the first day," Vice President Arthur Caille said: "We sent out 3,000 invitations to our opening and over 2,800 outdoor-minded people attended. And after the newspaper announcement a steady stream of visitors from Detroit and neighboring lake and river resorts have added their testimony to the conclusion that the fastest growing, and what will soon be the most popular, summer sport is outboard motor boating.

"In our showroom," continued Mr. Caille, "it is our intention to provide the public with a selection of boats and motors to suit every purse and purpose, and to attain that end we are exhibiting the entire Caille line of outboard motors, from the portable Caille Companion to the big, powerful Class C Caille Streak Racer as well as eight different lines of boats, from canoes and rowboats to racing cruisers."

One hundred and twenty feet in length, with a 20-foot ceiling, no expense has been spared to make the Caille showroom the most beautiful of its kind in America. Huge windows add to the attractiveness of the display and flood lights serve to advertise the exhibit at night. On the ground floor of the building adjoining the showroom are the handsomely appointed executive offices, (*Continued on page* 170)

T. L. Smith, Adolph Caille and Arthur Caille of the Caille Motor Company

WIN with Wolf's Head Oil!

MASTERS TIRE CO.
422 South 20th Street
Birmingham, Ala.
May 28, 1929

Wolverine Lubricants Co. Inc.,
51 Madison Avenue,
New York City, N. Y.

Gentlemen:

It is with a source of pleasure that we give you the remarkable results attained by our Johnson Sea Horse "32", lubricated with WOLF'S HEAD #6 OIL.

On Sunday, May 26, The Birmingham Motor Boat Club held an official 100 mile marathon race on the Warrior River. This race was won by D. Stephenson, driving a Sea Horse "32" in the remarkable time of two hours and forty minutes. This race was completed without a single stop. You can easily understand why the finest lubricant obtainable is a vital necessity to a motor turning 5000 R. P. M.

As a mere act of gratitude, this unsolicited endorsement is handed your WOLF'S HEAD OIL. It was not through luck that we selected this oil for such a grueling race, but a careful elimination through tests of a number of oils suitable for this purpose. Our confidence in WOLF'S HEAD was nobly substantiated.

The winner of the race has a word to say, "Never have I heard a motor turning better than 5000 R. P. M. perform as smoothly as did this Sea Horse lubricated by WOLF'S HEAD. My search for THE oil is ended.

Yours very truly,
MASTERS TIRE COMPANY
By R B Masters
R. B. Masters

RBM:F

"... Never have I heard a motor turning better than 5000 R.P.M. perform as smoothly as did this Sea Horse lubricated by WOLF'S HEAD. My search for THE oil is ended."

TRADE MARK

WOLF'S HEAD OIL

WOLVERINE · LUBRICANTS · COMPANY · INC.

A. L. HAMMACK

BIRMINGHAM, ALA.

June 4, 1929

Wolverine Lubricants Co. Inc.,
51 Madison Avenue,
New York City,
New York.

Gentlemen:

I thought you might be interested to know that on May 26th, 1929 Richard Golsen driving a Lockwood Chief using WOLF'S HEAD OIL was entered in the 100 Mile Marathon Race held on the Warrior River at Birmingham, Alabama and in a field of 15 starters took first place in its class (Class H) and was the third man to finish in the entire field.

This motor ran the entire 100 miles without a stop or mishap. The motor ran perfectly at all times. I cannot say too much for WOLF'S HEAD OIL and Lockwood Motors after this severe test of 100 miles on a wide open throttle.

Very truly yours,
A L Hammack.

"I cannot say too much for Wolf's Head Oil and Lockwood Motors after this severe test of 100 miles on a wide open throttle."

Wolf's Head Oil, available at most dealers, is unsurpassed for outboard motors as well as all types of inboard marine engines.

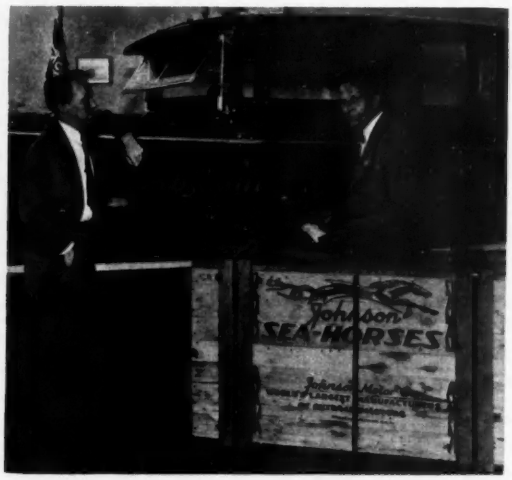
If your dealer cannot supply you, write to us.

We have an excellent proposition for dealers. Ask about it!

WOLVERINE LUBRICANTS COMPANY, INC.
51 MADISON AVENUE NEW YORK CITY

THE MONTH WITH THE OUTBOARDS

(*Continued from page* 168)



Arthur Utz, Gar Wood's New York representative, takes delivery of a Johnson Sea Horse 32 from D. M. Matheson. Wood will drive this motor in the International races at Venice

including the quarters of Mr. Caille, T. L. Smith, general manager, the sales and service department and conference rooms. On the balcony overlooking the showroom are additional offices devoted to the accounting and credit departments.

Most of the credit for carrying the plans of this magnificent edifice to their fruition devolves on T. L. Smith, general manager of the Caille Motor Company, whose faith in the future of outboard motor boating resulted in his proposing to other Caille officials the investment of unusually large capital to build a structure which is a model and a credit to the outboard motor industry.

VICIOUS MOTOR ATTACKS DRIVER

It happened during the course of the outboard motor races held on Lake Michigan off North Shore Park, Racine, Wisconsin. Principals in the cast were Charlie Koeffler, driving an Evinrude Speeditwin, and Bill Higgins, driving an Elto Hi-Speed Quad.

Koeffler was running wide open, trying to overtake a competitor down the mile straightaway, when he was bounced completely out of the boat. Being somewhat alarmed, he called for help, so Bill Higgins, who is a good friend of Koeffler, slowed down his motor and picked Koeffler up.

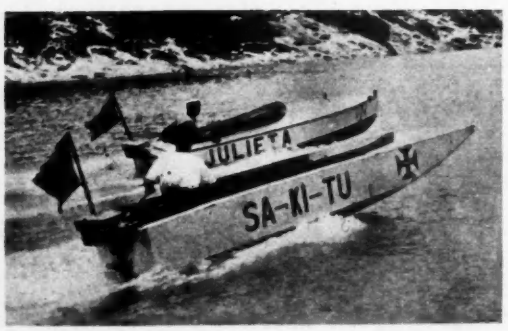
Together they watched Koeffler's Evinrude on a Hooton Wildcat run wild, first straight down the course gaining on the boat ahead and then making a wide circle, estimated to have been about two or three miles to the right. After the motor had swung around, Higgins said to Koeffler, "Look at the darn thing! She's heading right back into the course!"

A little while later Koeffler said, "We'd better look out, she's heading right for us!"

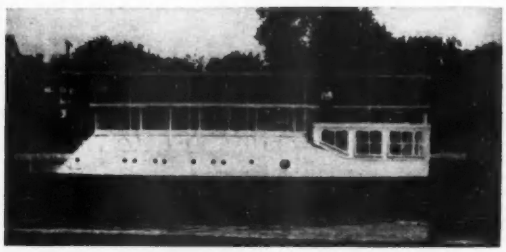
Higgins says he doesn't remember just how or when he and Koeffler dove into the water, but at any rate both realized that it was necessary to get under the lee side of Higgins' boat in order to escape Koeffler's boat which was charging directly amidships into Higgins'.

According to spectators, Koeffler's boat not only struck Higgins' (this is clearly evidenced by the fact that the gunwale is torn off and that there is a hole staved into the side of Higgins' boat) but Koeffler's boat actually leaped 12 to 15 feet high into the air, the motor meanwhile revolving up to R.P.M. hitherto unknown, and then landed right side up in the water, the motor stopping when the boat landed.

"Did you ever see anything like it in your life?" sputtered Koeffler as he climbed into the Coast Guard boat exhausted from his adventure. "First she dumps me into the lake and then she comes back to duck me again. Can you beat that?"



Portuguese officials racing their outboards near Hongkong



This craft was once used by the U. S. Navy. Converted to the fishing business, it is powered with a Johnson Big Twin

BIG JOB FOR OUTBOARD MOTOR

One of the biggest jobs any outboard motor ever tackled is shown in an accompanying photograph. This shows the houseboat Wanigan of the Cameron Chandler Survey at work on the Speel River near Juneau, Alaska, gathering information for the pulp and paper industry.

An Elto Service Speedster, according to a letter from the Juneau-Young Hardware Company of Juneau, Alaska, Elto dealers, is used to move and steer this boat. The job looks difficult enough on the photograph, but when we mention that the houseboat is supported by three logs, 4 feet in diameter, the clumsiness of the outfit and the enormous amount of weight which needs to be moved becomes apparent.

However, the Cameron Chandler Survey was so well pleased with the work of their Elto motor last year that they placed an order for an additional motor.

ILLINOIS AUTHORITIES HAVE 3-MILE JURISDICTION

Outboard motor operators in Illinois who believe that there is no authority compelling them to recognize the rights of others by the proper use of mufflers and a due regard for the safety of bathers are

(*Continued on page* 174)

SMART!

SWIFT!

SEAWORTHY!

SAFE!

....and now here's the biggest "buy" in boating

The New CHASE-EMERSON

Inboard RUNABOUT

Powered with the Van Blerck, Jr., Motor

at only **$995** *F. O. B. Norwalk, Ohio*

Complete! with all cushions, windshield, steering wheel, flag poles and other "extras"

A new dealer proposition

Chase-Emerson dealers are selected with great care—for this new runabout bids fair to make the most sensational success in boating history. It is a fine boat—and we want dependable dealers with the ability and foresight to make the most out of it. Write today for this unique dealer propositon.

A high-grade, fast, dependable motor boat for less than $1,000! Chase-Emerson has done it again . . . lead the whole field . . . anticipated just what the boating world was waiting for. And besides the great value, offers the smartest, most delightfully designed, most comfortable small boat afloat.

22 to 25 miles an hour are assured by its light but powerful and dependable Van Blerck motor, installed amidships under cover, with self-starter and reverse gear.

The boat itself is of noteworthy Chase-Emerson sound construction and beautiful finish . . . 16 feet long, 4 ft. 6 in. beam . . . comfortable seating capacity for 5. But only a little of the story can be told here. Write for information.

A. B. CHASE-EMERSON CORPORATION

11 West 42nd Street, New York

Factories, Norwalk, Ohio

The Greatest Sum of Outboard Motor Experience

OLE Evinrude, founder of the Evinrude Motor Company and the Elto Outboard Motor Company—thank *him* for lifting weary hands from heavy oars. He gave the world the first successful outboard motor in 1910, the first twin-cylinder lightweight in 1920, the first four-cylinder outboard in 1928 and the first folding outboard in 1929.

The Evinrude Motor Company — thank this division of the Outboard Motors Corporation for conceiving the first two-cylinder outboard in 1916, introducing fly-wheel magneto ignition, rope starting, tilt-up and ball-and-roller bearing construction.

The Lockwood Motor Company — thank it for creating the first underwater exhaust that does not decrease power, inventing the "Pilot" which "takes hold of the motor when you let go", and putting tremendous speed and stamina into a lightweight Class B motor.

The emblem of these now consolidated, yet competitive divisions of the Outboard Motors Corporation, represents the world's greatest sum of outboard motor experience.

You can buy their models of today and tomorrow with the positive knowledge that engineering, manufacturing and value-giving are of standards proved by a glorious past and protected by opportunities such as only the forming of the Outboard Motors Corporation could create.

OUTBOARD MOTORS CORPORATION
OLE EVINRUDE, *President*
MILWAUKEE, WISCONSIN

Advertising index will be found on 3rd last page

OUTBOARD
MOTORS
CORPORATION
EVINRUDE
Elto
LOCKWOOD

THE MONTH WITH THE OUTBOARDS

(*Continued from page* 170)

Lady Mountbatten presents the Duchess of York Trophy to R. D. Weatherall

to be speedily disillusioned, according to State's Attorney Harry Ash of Chicago. Mr. Ash states that the Illinois statutes, Smith & Hurd, Chapter 24, Article 5, Section 83, provide that "all city and village authorities have jurisdiction over all bodies of water to the extent of three miles beyond the city or village limits within the State of Illinois." He explains that this gives police authority to arrest outboard pilots who conduct themselves in such manner as to constitute a nuisance.

Chicago authorities are cooperating with Mr. Ash to the extent of checking all reported violation on Lake Michigan or the Illinois River. The police will first warn offenders. If the warning is not heeded they will be arrested, jailed until bail is furnished, tried and fined as operating a nuisance.

"My office is in receipt of many complaints," said Mr. Ash, "and we are taking steps to discipline the few offenders whose conduct is at present reflecting on the sport in general. We have the cooperation of the National Outboard Association and its affiliated clubs in Illinois and are out to make this misbehaving minority recognize the rights of others. Automobiles provoked the same trouble when they first became popular and now that America has gone outboard it is well that all who have the interests of the sport at heart cooperate to put a stop to this sort of thing at its inception." Mr. Ash stated that, in addition to complaints about noise, he had several letters telling of outboard pilots speeding along beaches in such proximity as to scare bathers and in a few instances actually endangering their safety.

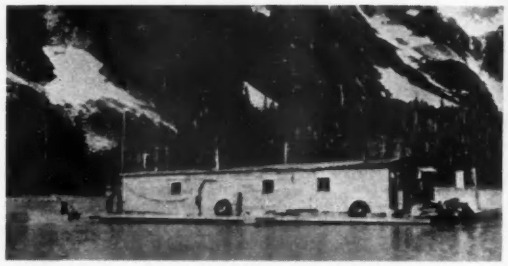
Harry Clark and Frank Morley, who are taking a 16-foot outboard boat from Huron, Ohio, to Mt. Dora, Florida

OUTBOARD ADDED TO DOLLAR LINE

Stanley Dollar, who can race an ocean liner 'round the world if he so desires, is one of the latest celebrities to go in for outboard motor racing. Mr. Dollar, son of Robert Dollar of the Dollar Steamship Lines, summers at Lake Tahoe, California, which is rapidly becoming one of the most popular outboard regatta points for the coast. At a recent event in which Mr. Dollar was entered he piloted his Stanley Bullet to second place.

SPORTS WRITER URGES SAN ANTONIO REGATTA

Big Bill Furlong, writing in the San Antonio (Texas) News suggests that a purse of $5,000 be put up by his city for an outboard racing classic to be staged on Medina Lake there. It is Mr. Furlong's belief, borne out by the experience of many another city in America today, that there is no other civic activity that will draw the crowds and result in such worth while national publicity as a big regatta with the outboard events in the spotlight. San Antonio is taking his recommendation seriously and it is expected that some interesting news will develop from committees of the San Antonio Boat Club shortly.



Houseboat Wanigan of the Cameron Chandler Survey at Juneau, Alaska, being moved by an Elto Service Speedster

TOURISTS CARRY OUTBOARD MOTORS

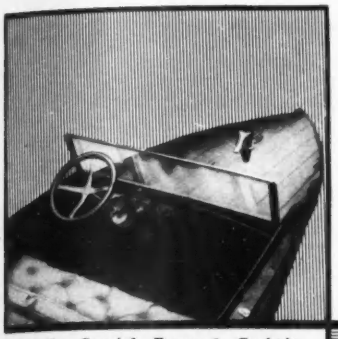
A new source of revenue for resort men and guides is predicted by the editor of the Grants Pass (Oregon) *Courier*. He comments editorially on the fact that many tourists, passing through that scenic section, carry outboard motors with them. "But," he says, "they seem to have difficulty in obtaining boats with which to use them. They would like to use their own motors and travel on the scenic Rouge River. Many of them would hire boats for a week at a time. At a dollar a day for the use of boats the forward-lookers who will start a boat livery here would make easy money and add a new business that would be of civic value."

OUTBOARDS ADD TO REALTY VALUES

"The unprecedented interest shown in outboard motoring along the Patchogue River," say the Brooklyn (N. Y.) *Eagle*, "lead to the biggest real estate deal ever transacted in which river front property has

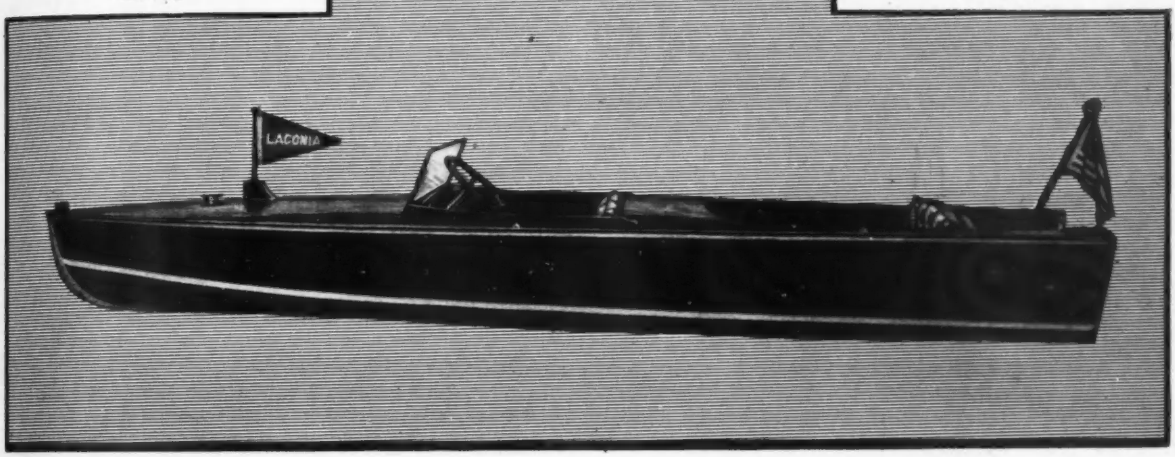
(*Continued on page* 190)

LACONIA SPECIAL



Laconia Special Forward Cockpit. Note roominess and operating controls

Back of Seat in Aft Cockpit folds down, making a motor readily accessible



The Outstanding Runabout for Large Motors

Maximum Speed with Absolute Safety

IN designing the sixteen-foot Laconia Special for service with the largest and most powerful motors we incorporated an over-abundance of strength without sacrificing trimness or speed.

To those conversant with good boat construction practice the superiority of Laconia design and workmanship is readily apparent. The Vee-bottom is double planked with cloth interlining set in white lead. Four stringers besides keel and chines are used to give added ruggedness. The ribs are assembled with brass bolts, nuts and washers.

The Laconia Special is capable of speeds in excess of 35 miles per hour. Motor controls are mounted on the dash near the steering wheel. The seats are upholstered with rich soft cushions of life preserver type. Both forward and after cockpits are handsomely panelled and finished. The floor boards are covered with linoleum. All hardware is of white nickeled brass, giving a handsome finishing touch to the boat. Every desirable fitting for comfort or safety is furnished as regular equipment at no extra cost. The Laconia Special is delivered ready for motor.

Write today for full information on the Laconia Special and name of nearest dealer. Laconia boats may be purchased on an attractive deferred payment plan. Ask about it!

Dealers! Represent Laconia in your territory. Send for our proposition today.

LACONIA CAR COMPANY

LACONIA, NEW HAMPSHIRE

OUTBOARD NOTES

MIDDLETOWN REGATTA SEPTEMBER 20-21

ARRANGEMENTS are being completed for a big two-day outboard regatta to be held at Middletown, Connecticut, September 20 and 21, under the joint auspices of the New England and the Middle Atlantic Outboard Association.

The program of events includes fourteen different races, open to two different classes of drivers. Five of these events, the Class B and C free-for-all, the Class D free-for-all, E free-for-all, the ladies' race in Classes B and C, and the handicap runabout event, will be open to any member of a recognized association. Over $400 worth of cash prizes have been secured for these races and prominent drivers from all sections have already indicated their intention of competing.

The second series of races will consist of events for Classes A, B and C in both Division I and Division II, and Class D and Class E, Division II. These are open to members of the New England and Middle Atlantic associations as well as the local yacht club. $1055 in cash and $250 worth of cups will be the prizes in these competitions.

In addition to the cash prizes, badges and medals will be distributed to the winners of the various events. The racing is scheduled to start at 12 o'clock and finish about 4:15 on each day. A stunt race is also on the program.

Greenflash, a speedy Cute Craft which proved the winner in Class B, both Div. 1 and 2 at the Newport regatta

LUCERNE YACHT CLUB REGATTA

On July 4-5, five successful events for B, C, and D Class outboards were staged in the Clear Lake Beach Regatta of the Lucerne Yacht Club, Lucerne, California.

The first race was run in three heats of five miles each over a 15-mile course for Class B, Division I drivers. Hot Cha was the winner on a point score in a field of seven starters, with O. C. Gustafson at the wheel. Sic-Em placed second and Flying Cloud third.

In Class B, Division II, Hot Cha again took first honors with Frank Gustafson driving. Eleven entries were attracted to this event, in which Cappy Ricks II, driven by H. M. Barnes, and F. W. Fisher's Spirit of California took second and third places respectively.

Class C, Division II, was won by T. C. McVay's No Kid'n, closely followed by Robert Tilson, piloting W. L. Adam's Barnacle Bill.

Seven boats competed in the C Class, with unlimited motors on the second day of racing. No Kid'n led the field, followed by Ricochet III, Swallow and Rosscraft in the order named.

G. C. Speegle's Spig II won every heat of the Unlimited D Class with No Kid'n and RossCraft running second and third.

Mile speed trials for B, C, and D Classes were run on the second day.

WATERWITCH A POPULAR BOAT

The new 16-foot all mahogany five passenger outboard runabout Waterwitch is an attractive boat built by the Dachel-Carter Boat Company, of Benton Harbor, Michigan. Harry E. Chapman, Sales Manager of the concern, announces the fact that, despite bringing out this boat late in the season, the large dealer demand has compelled the builders to expand their outboard motor boat section to double the former capacity.

Powered with a C class outboard, this boat will give better than 27 miles per hour. Its unique features are worthy of comment; seat backs fold so that passengers may face to the stern, or forward, or facing one another—the driver has a special swivel chair which travels on a small track to permit of extremely easy maneuvering and increased comfort. The seat backs also are so designed that they may be slid into position to form a large comfortable berth for two in the bottom of the boat.

For its size and price, the Waterwitch has already made a singular mark in the large and growing field of outboard enthusiasts.

NEW LUDINGTON BOATS

Ludington Aircraft, Inc., Philadelphia, have announced the new Ludington Flash as a development of the old model Ludington Flash, which has been so successful in the last twelve months.

The new flash is designed to accommodate the more powerful Class D Motors now on the market. Side bustles have been attached from the step to the transom at the chines, to facilitate turning. The transom height and angle have been changed, and strong transom braces have been added. The boat has been made much stronger throughout, and has given a very good account of itself on the Ludington Proving Grounds. This boat is identical with the boat used by Jacob Dunnell in establishing a new Class E record for Division 2, five miles at Worcester, Mass., last Decoration Day.

The Ludington Buccaneer is now furnished with very complete equipment. The makers inform us that they are proud of this boat, as it is the result of exhaustive tests. It is said to be thoroughly safe, able to carry from five to seven people, and has proved itself capable of making as high as 35 m.p.h.

A new catalogue is being issued by Ludington Aircraft, Inc., and will be sent to anyone who may be interested.

SHIPWAYS TO THE SEA

An exhaustive treatise has been prepared by Ernest S. Clowes covering the part which our national waterways have played in the history and development of the country. All of our inland and coastal waterways are taken up in considerable detail including the Mississippi system and its floods, the Great Lakes and their levels, the proposed St. Lawrence seaway, barge outlets from the lakes and other principal waterways. Mr. Clowes deals with this subject not only in a historic and descriptive manner but also visualizes a great many possibilities in extending our water transportational facilities. The name of this book is Shipways to the Sea and is published by the Williams and Wilkins Company, Baltimore, Maryland.

FOR THE MODEL MAKER

Persons interested in the construction of models of boats and vessels of all types will get a great deal of valuable information

Yachtsmen of the eastern Connecticut shore are warned to beware the Jolly Roger, a bold pirate craft that hides among the rocks of Groton Long Point and scourges the waters of exclusive Fisher's Island Sound. It will be recognized by the brazen skull-and-cross-bones burgee, cowbell warning, low black square end hull, and formidable gun turrets. Unlike Captain Kidd these modern Kidds depend on an Elto to overhaul their prey

out of the monthly issues of the Ship Modeler, the official journal of the Model Makers' Club. Not the least interesting of the sections of this magazine is the one devoted to helpful hints in model making. Each issue gives a number of pointers such as the best methods of holding the hulls while they are being shaped both inside and outside, and the easiest ways of doing scrollwork.

Check the "Chief"

With Any Other Outboard

A Comparison Proves Its Outstanding Value

Check for Power:

In the "Chief," Lockwood Engineers have unleashed a new found power hitherto unknown to outboards.

Check for Stamina:

The "Chief" proved its unparalleled stamina by successfully completing the longest, hardest and fastest open sea voyage ever attempted and finished. 1600 miles from Miami to New York in 26 days.

Check for Speed:

The "Chief" holds more Official Class B Records than any other Motor.

Check for Silenced Exhaust:

The "Chief" offers a new quietness of operation *without any loss of power*. The tapered exhaust chamber ends loud exhaust noises. All obnoxious fumes are discharged under water.

Check for Ease of Control:

Only Lockwood Motors are equipped with the "Lockwood Pilot." "An unseen hand takes hold of the Motor when you let go." Leaves both hands free to light your pipe or arrange your tackle.

Check for Certainty of Oiling:

The "Chief" is equipped with an Automatic Lubricating System extending to the crank pin bearings as well as to main bearings.

Check for Operating Convenience:

The "Chief" gives you finger-tip control, easy starting and a visible, well-protected gasoline gauge that can be seen while driving.

Ask any Lockwood owner, and he will tell you how priceless are these extra value features of the—

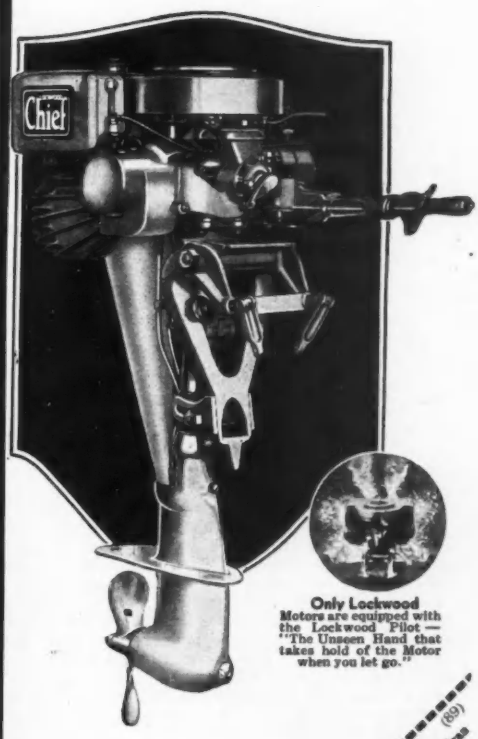
LOCKWOOD
"SILENT CHIEF"

The most enjoyable motoring days of the year are just ahead. Now is the time to call on your Lockwood Dealer for a demonstration. If you wish a Lockwood catalog of Outboard Motors, send us your name and address on the coupon or a post card and it will be sent to you promptly.

LOCKWOOD DIVISION
OUTBOARD MOTORS CORPORATION
91 S. Jackson St. JACKSON, MICH.

CANADIAN DISTRIBUTORS

McQUILLIN, LTD., 1955 Georgia St. West, Vancouver, B. C.
FRED I. MITCHELL, 1203 Notre Dame St. East, Montreal, Que.
SYCO SUPPLY CO. 230 Bay St., Toronto, Ontario
MARSHALL-WELLS CO., Winnipeg, Man.



Only Lockwood Motors are equipped with the Lockwood Pilot — "The Unseen Hand that takes hold of the Motor when you let go."

LOCKWOOD DIVISION (89)
91 S. Jackson St., Jackson, Michigan
Outboard Motors Corporation. Send me free Catalog folder describing the new Lockwood Motors for 1929. I am particularly interested in
☐ "Silent Chief" ☐ "Racing Chief" ☐ "Ace"
Name .....
Address .....
City ..... State .....

Lockwood Sets New Official Record

On July 22nd, at Cobossecontee, Maine, Charles Harris driving a Herbst boat powered with Lockwood "Ace" set a new official Class A record of 25.959 miles per hour.

RECORDS FALL AGAIN AT ELSINORE

At Hadsell Beach, Lake Elsinore, California, on July 28 there gathered the largest aggregation of Outboards we have seen on the Pacific coast this year, and the L. A. Times estimated the number of onlookers at 15,000.

There were movie and press cameras present, attracted, no doubt, more by the novelty wedding than the races.

H. G. Ferguson, acknowledged King of the Outboards, won everything, breaking three American records and establishing two new ones, but lost to little Cupid when he took unto himself Edna Hastings. The happy couple stood up in the famous Blue Streak out on the lake alongside the Commodore's barge, in which stood Judge Kalina, who performed the solemn ceremony and pronounced them man and wife according to law. The best man, Kenneth Maynard, a distinguished actor of the silver screen, who, accompanied by his wife, flew from Yosemite in order to attend the races, occupied Black-Foxe, a new entry into the outboard field, flying the colors of the Military Institute of that name, fifty-five of whose fine boys are camping on the shores of beautiful Elsinore for the summer. And out beyond these three boats, containing the principal actors in the drama, was a flotilla of sixty odd outboards formed in a great crescent around the scene; these with their variegated colors and odd names presented a remarkable and most novel setting for the nuptials.

Everything went off like clockwork and Fergy kissed the bride without upsetting or even rocking the boat—much to the disappointment of the cameraman.

In former years it used to be difficult to obtain five starters in a class B race, but times and customs change, as also do speed limits, and this day no less than thirteen buzzing busy bees crossed the starting line and sputtered down the fairway, each striving desperately for supremacy.

H. G. Ferguson, running his maiden class B race using a Johnson motor on a new model Elsinore, B hull, eclipsed the mile straightaway American record, hung up on June 15 by Crandall Comet. Ferguson sustained a speed of 40.54 m.p.h. for six miles in the slower fresh water. His nearest competitor Pontiac, formerly Trojan and holder of the six-mile record in competition, made by John Graham, May 30, on the same course at 37.69, came up about 900 feet behind or nineteen seconds after Blue Streak flashed past the judges' stand, while Miss Hupmobile, holder of Division I, class B, one-mile straightaway record, came in third place, one-half a second later. John Graham in Spirit of California was fourth and Crandall Comet with Johnny Adams up, fifth.

In the second heat, Blue Streak did its stuff again, but not so fast, while Diamond C, a Salton Sea entry (which was one of the former Flying Scotsmen) finished a good second with Miss Hupmobile not so close, followed by Spirit of California and Pontiac.

In the class C 6-mile event, Blue Streak still running the class B Johnson Sea Horse 16 motor, increased its speed to 40.63 m.p.h. and romped away to a smashing victory over Arthur Aarup in a new Aaruplane equipped with an Evinrude Speeditwin, leaving a gap of 900 feet between the boats. Miss Salton was third. In the second heat, after Blue Streak came Miss Salton, who beat the Aarup entry and gained second place. Ten starters made this a very picturesque and interesting event.

In Division I of class C, another Miss Salton, slipped, broke a garter or something or other and did a wonderfully spectacular wing-ding right before everybody just after the start of the race and the long slim Hayward from Coachella was himself utterly at a loss to know just what did take place between Miss Salton and himself to be thus so rudely thrown headlong into the lake.

From the start the new Black-Foxe entry darted into the lead and was well away from the bunch when his motor came loose and started to see-saw on the transom, but Triggs was unwilling to give up a race he had well in hand and kept going, making dangerous swerves from one side to the other until he had the crowd gasping with excitement; at the finish of the first lap he was compelled to abandon the course.

This event was also won by Blue Streak, piloted by Chuck Hall, making a Division I record of 37.75 m.p.h. Eight seconds behind came Bendowski in Miss Hupmobile and Miss Mildred Mildy, one of the lady entrants, was a good third, driving Wild Oats.

In the class D event four of the big Johnson 32s contended for the honors. Ferguson in Blue Streak hung up another American record for six miles in competition by averaging 43.06 m.p.h. Fourteen seconds behind him was Frank Helm, Jr., of Fresno, in Applesauce—the man who won at Huntington Lake recently. Eleven seconds later came John Graham in Miss Hollywood, while the rear was creditably brought up by Al Thomson in Black Maria.

Following this, Blue Streak did a heat of 15 miles at 40.40 m.p.h., which is certainly sustaining a high average in B motor efficiency on one tank of gas. Diamond C was forty-seven seconds slower and Miss Salton was fifty seconds behind, then followed Spirit of California and Crandall Comet.

In the class C 15-mile heat Blue Streak did the same disgustingly consistent I-win act, but Pontiac came up into second place, followed by Miss Salton and Rowdy II.

Of all the unfortunate streaks of ill luck and tough breaks which from time to time befall all outboard sports, about the roughest deal fell to the lot of Commodore Murphy of Salton Sea, who was the sole and only contender who distinguished himself by passing the invincible Blue Streak and gaining a lead of five lengths, up to the last turn, when, blinded by spray, he missed the marker and passed it on the inside. Making a short turn to correct the error, he capsized.

Note: When you make a mistake such as this, and have to turn about ship, turn to the inside of the course—not outward; this is dangerous as one may turn directly in the lane of an oncoming boat, and at 40 plus they come on in less time than it takes to change your course in an outboard with any degree of safety.

And thus ended one of the best regattas of the Pacific Coast. Blue Streak's consistent performance equals that of the Flying Scotsman at Canyon Lake during the interstate regattas, earlier in the season, when Floyd Pierce drove to first place in every event.

SUMMARY OF THE RACES

	Time		Point Score
Class B—Division II—6 miles—	1st Heat	2nd Heat	
Blue Streak	8:53	....	800
Owner, Dr. Leo Baughman			
Driver, H. G. Ferguson			
Miss Hupmobile	9:34½	....	649
Driver, John Bendowski			
Pontiac	9:34	....	617
Driver, C. G. Stewart			
Class C—Division II—6 miles—			
Blue Streak	8:52	9:24	800
Rowdy II	9:34	9:57 2/5	605
Silver Star	....	....	481
Class C—Division I—6 miles—			
Blue Streak	9:36	9:32	800
Driver, Chuck Hall			
Miss Hupmobile	9:42	9:36	722
Vagabond	10:03	....	613
Owner and Driver, P. H. Wheeler			
Wild Oats	....	....	580
Owner, Al Thomson			
Driver, Mildred Mildy			
Class D—Division II—6 miles			
Blue Streak	8:20	....	800
Applesauce—Frank Helm, Jr....	8:34	....	685
Miss Hollywood	8:45	....	613
Owner, Ralph Paine			
Driver, John Graham			
Class C—Division II—15 miles			
Blue Streak	22:19		
Pontiac	22:55		
Miss Salton	24:04		
Rowdy II	24:20		

BUFFALO LAUNCH CLUB REGATTA

On July 26, 27 and 28 an interesting regatta was staged by the Buffalo Launch Club, Buffalo, N. Y. The races included events for stock runabouts, 151 hydroplanes, a free-for-all runabout race and outboard races in Classes B, C, D and free-for-all.

On the first day of racing four Dodge Watercars competed in a 10-mile race over a smooth course. Lindy, owned by C. Roy Keys, was the winner, with a total elapsed time of 22:14. R. Williams' Baby Wilgold was second and Phyllis, owned by R. H. Fleet, was third. In the 5-mile 151 hydroplane race, run in three heats, Little One II, owned by R. Sheldon, succeeded in taking first place, followed by C. Hall's Thunderbolt. The handicap runabout race was held on the last day of racing in a choppy sea. Phyllis was the winner of this event and L. Simpson ran second in Okobaji. The runabouts in the free-for-all class had fair weather and a smooth course on the second day of racing and F. Webster's Holomar II finished the 10-mile course first in a total elapsed time of 18:47. L. Simpson's Okobaji ran second in this event. The grand free-for-all was taken by R. Key's Curtiss Wilgold with Miss Palm Beach second and Holomar third.

The Class B outboard race was a 2-mile event won by F. Brobeil's Non Pareil. In Class C Non Pareil was again the winner and Class D was won by L. Preston's Ceestepper. The outboard free-for-all was a 5 1-3-mile race in 8 laps, run in rough water. Ceestepper was the winner, with a total elapsed time of 14:57.

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AGAIN EVINRUDE RECORDS are broken . . . . *by other Evinrudes!*

41.007 M. P. H., by R. Allen Smith at Cross Lake, La., July 21, Class C, Division II. Also 41.143 M. P. H., by Millard Jackson, Cobosseeconte, Maine, July 22, Class C, Division I.

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LIPTON TROPHY WON BY C. M. SCULL

(*Continued from page* 162)

and a fourth place. Three Star is a Pigeon Hollow Spar boat without a step, and has been slowly gaining fame around the East. It, too, is powered with a big Johnson, and it was a race of the Johnsons.

There was a dead-lock for third place in the point score, at 955 1-2 points each, between Malcolm Pope with Pirate Chief, of Lake Hopatcong, N. J., and Pigeon, another Pigeon Hollow Spar boat, with Johnson, driven by W. J. Snadecki, of Westover, Va.

Collier's poor showing in the first heat for the trophy cost him a real chance to win, for thereafter he had no chance with Shooting Star, with a point disadvantage of 111 points to start with.

When the boats gathered for the start of that first heat, it appeared to be a convention. There were thirty-two actual starters on the line, ready for the gun. They all went off like a bunch of flies, swarming up the river to the first turning marker, far above the high trolley bridge. Slowly the boats began to drop by the wayside, as the pace of the leaders left the others far behind.

Boats were paired off, as they viciously battled for position. Snadecki's Pigeon was the first to finish. Others followed in close succession. Allen with Harmony had upset, and others had quit. The committee held a pow-wow, ruled that it was a false start, with two boats off ahead of the gun, and the race was ordered re-run.

Again thirty boats lined up, after a D class race had been sandwiched in between. Shooting Star led much of the way, and turned in a 12-second victory. The real race was for second between Pirate Chief and Pigeon. Nip-and-tuck they battled. At the finish it was ruled as a dead heat, and the points divided. Collier's Three Star was fourth, and thereby went his chances of victory, as he later sadly learned.

The 30,000 odd spectators lining the banks for miles, were stirred by a splendid conquest of Three Star in the second heat, when she beat Shooting Star by 5 seconds with Pigeon again third. Snadecki, skipper of Pigeon, was racing that boat in its first regatta.

Then came the third heat, with Scull and Collier battling for the trophy. Scull then had a point advantage of 72 points, and first or second place would give him the trophy. Scull was taking no chances, however. He slowed up for the turns, and made quicker turns than if he had taken them at high speed, as he did in the second heat. He gained an advantage early in the race of two or three boat lengths. And just about that way it remained all the way around with Scull winning at the finish by two boat lengths. The timers found the margin to be 3 seconds.

Pigeon completely missed the last turn at the lower marker, and lost third place to Pirate Chief. The river was so smooth, he skidded probably 25 yards, and had to make a second turn to straighten out on the final run to the finish.

Commander C. W. Howard, naval attache to the British Embassy, at Washington, formally started the first heat for the cup, and after the regatta presented the Lipton trophy, on behalf of the English peer. In the middle of the afternoon Commander Howard thought it might be nice to take a little spin in an outboard, and C. W. Sprenger, of Philadelphia, offered to comply. Howard and the crowd received a great thrill, when the boat hit a wave, and almost tossed him out. But he returned ashore safe and sound, and said he enjoyed it.

The regatta was a two-day affair, and was full of action. In the other races on Saturday, A. J. Allen turned in a victory with his Harmony and consequently did not return home altogether empty handed. That was in Class D, Division 1. He won by 4 seconds, making 37.76 m.p.h., defeating Hofberg in Blixten, and Earl Gresh with Philadelphia Kid. Harmony is a Century boat with Johnson motor.

Collier enjoyed a side diversion outside the Lipton race, by winning Class D, Division 2, with his Three Star, from three southern boats, among them Pigeon, and Kerr's Cuban Pirate, from Florida.

Joe Masterton, of Paterson, N. J., turned in three triumphs in the regatta, something of an accomplishment for one driver. His boat was Century Cyclone which won the Class C, Division 1 race. He averaged 34.34 on Saturday in the C race for his best time. F. David's Speedcraft, of Middletown, Del., was second in both of the B races, but Bill Smith with Baybo Baby was second in the C race.

W. B. Schantz, of Lake Hopatcong, N. J., triumphed in Class C, Divisions 2 and 3, with Zip II, making 36.36 m. p. h. to beat Vice Commodore David B. Arndt, of the Philadelphia Outboard Association. Arndt took time off from officiating at the races to run his boat in two events, taking a second and third for his troubles.

Wilson Keyser, of Middletown, Del., piloted Speedcraft to victory in the displacement family runabout event.

Speed trials produced plenty of action on Friday, but although early reports had a record in danger, it later proved that none were seriously threatened. Philadelphia Kid, driven by Earl Gresh, of St. Petersburg, Fla., a Ludington boat with Evinrude motor, made 40.28 m. p. h. for Class C-2, but was short of the record, which is over 41. Miss Helen Hentschel, with her brand new Golden Girl, from Flushing, L. I., made 38.86, also in C-2. Carl Hofberg's Blixten averaged 41.77 m. p. h. in Class D-1, and O'Neill in Sandot made 36.49 for Class E-1.

SIR THOMAS LIPTON TROPHY RACE
Unlimited Free for All—Three Heats of Six Miles Each

Boat	Driver	Time 1st heat	2nd heat	3rd heat	Points
Shooting Star	J. Mulford Scull ...	9:04	9:09	9:04	1161
Three Star	r. L. Collier	9:26	9:04	9:07	1059
Pirate Chief	Malcolm Pope	9:16	9:29	9:20	955½
Pigeon	W. J. Snadecki ...	9:16	9:20	10:08	955½
Midship	Ken Hughes	10:01	10:26	10:27	401
Sandot	J. G. O'Neill	11:41	11:12	D.N.S.	313
F 208	W. J. Hewitt	10:37	9:58	D.N.S.	256
Julia B	E. A. Harmer	14:24	13:14	D.N.S.	225
B 875	Thomas Maloney	D.N.S.	10:30	D.N.S.	196
Blixton, C	Carl A. Hofberg ...	9:28	D.N.S.	D.N.S.	256
Imalone	E. Widegren	9:49	D.N.S.	D.N.S.	disq.
Harmony	A. J. Allen	9:50	D.N.F.	D.N.S.	225
Zip II	W. C. Schanz	9:57	D.N.S.	D.N.S.	196
Cuban Pirate	J. Kerr	10:24	D.N.S.	D.N.S.	169
Shady Rest	Jos. Esposito	12:44	D.N.S.	D.N.S.	121
Noname	C. W. Sprenger	13:43	D.N.S.	D.N.F.	100

TIME TRIALS, SIX ONE-MILE TRIALS

Boat, Driver and Town	Class	Speed
Blixten, C. A. Hofberg, Clifton Heights, Pa.	D-1	41.7
Sandot, Muffie, J. G. O'Neill, Moorestown, N. J.....	E-1	36.4
Miss Q., Richard Quigley, Lock Haven, Pa.	D-1	37.9
P-23, H. Young, Philadelphia	C-2	39.6
Phila. Kid, Earl Gresh, St. Petersburg, Fla.....	C-2	40.2
Golden Girl, Miss Helen Hentschel, Flushing, L. I.....	C-2	38.9

DISPLACEMENT FAMILY RUNABOUTS—6 MILES

Boat and Driver	Time
Speedcraft, Wilson Keyser, Middletown, Del.	13:9
Muffie, J. G. O'Neill, Moorestown, N. J.....	14:2
P-24, C. H. Weidemann, Philadelphia	16:6
Seacraft, Kenneth Hughes, Middletown, Del.	17:2

CLASS B—DIVISION 1—OUTBOARDS—6 MILES

Boat, Driver and Town	Time	Speed
Century Cyclone, J. Masterson, Paterson, N. J.....	10:37	34.3
Speedcraft, F. David, Middletown, Del.	11:30	31.3
P-22, Bob Ross, New Brunswick, N. J.	11:39	30.8
Phila. Kid, Earl Gresh, St. Petersburg, Fla.	12:04	30.0
Port, J. Kirby, Middletown, Del.	14:09	25.4
Boyd Martin, A. Collins, Swarthmore	14:10	25.4

CLASS B—DIVISIONS 2 AND 3—OUTBOARDS—6 MILES

Boat, Driver and Town	Time	Speed
Century Cyclone, J. Masterson, Paterson, N. J.....	10:39	33.8
N-304 (disqualified for failing to enter)	11:06	32.4
Speedcraft, E. David, Middletown, Del.	11:37	30.9
Mercury, W. B. Tuck, St. Petersburg, Fla.	12:18	29.2
Starboard, J. Kirby, Middletown, Del.	12:55	27.8
Port, Max Hammond, Middletown, Del.	13:45	26.1
C. Hoss, G. E. Stagner, Baltimore, Md.	14:22	25.0

CLASS C—DIVISION 1—6 MILES

Boat, Driver and Town	Time	Speed
Century Cyclone, J. Masterson, Paterson, N. J.	10:29	34.3
Baybo Baby, Wm. Smith, Kennett Square, Pa.	10:36	33.9
Thunder, David B. Arndt, Philadelphia	11:04	32.5
It, W. Powers, Philadelphia	11:08	32.3
P-23, H. Young, Philadelphia	11:09	32.3
P-31, Paul S. Burnham, Wilmington, Del.	11:31	31.3

CLASS C—DIVISION 2 AND 3—6 MILES

Boat, Driver and Town	Time	Speed
Zip II, W. C. Schanz, Lake Hopatcong, N. J.	9:54	36.3
Thunder, David B. Arndt, Philadelphia	10:12	35.3
Golden Girl, H. Hentschel, Flushing, L. I.	10:22	34.7
Baybo Baby, Wm. Smith, Kennett Square, Pa.	10:40	33.7
G-61, J. Kerr, Winterhaven, Fla.	11:08	32.3
P-23, H. Young, Philadelphia	11:21	31.7
Static II, Wm. H. Corker, Haddon Heights, N. J.	12:12	29.5

CLASS D—DIVISION 1—6 MILES

Boat, Driver and Town	Time	Speed
Harmony, A. J. Allen, Lake Hopatcong	9:32	37.7
Blixten, Carl A. Hofberg, Clifton Heights, Pa.	9:36	37.5
Philadelphia Kid, Earl Gresh, St. Petersburg, Fla.	10:05	35.7
Midship, Ken Hughes, Wilmington	10:21	34.7
Shady Rest, J. Esposito, Blenheim, N. J.	11:57	30.1
Julia B, E. Harmer, Philadelphia	13:20	27.0

CLASS D—DIVISIONS 2 AND 3—6 MILES

Boat, Driver and Town	Time	Speed
Three Star, F. L. Collier, Hampton, Virginia	9:07	39.4
Pigeon, W. J. Snadecki, Westover, Va.	9:16	38.8
Cuban Pirate, J. Kerr, Winter Haven, Fla.	9:22	38.4
Harmony, A. J. Allen, Lake Hopatcong, N. J.....	9:25	38.2
Philadelphia Kid, Earl Gresh, St. Petersburg, Fla.	10:05	35.7
Midship, Ken Hughes, Wilmington	10:15	35.1

CAILLE WINS IN ITALY

A cable recently received by the Caille Motor Company of Detroit from the Melchior Armstrong Dessau Company contains the information that Caille Motors are placing high in the outboard eliminating heats at Genoa, Italy. The Caille Flash took first place in Class B with a Caille Champion second and a Commodore model third. In the Class C event a Monarch model was successful in taking first place

FIRST over the line at NEWPORT

To Win is a Habit with BABY WHALE

BABY WHALE flashed to victory again at the Newport Regatta on August 3rd. Ross Maddox driving a standard Baby Whale powered with an Evinrude motor took first honors against a mighty impressive field in the five-mile Class C, Division II event with a speed of 34.48 miles per hour. And, in the Grand Free-for-All Baby Whale powered with a Johnson "32" crossed the line first with a speed of 39.3 miles per hour.

A BABY WHALE for Every Purpose

11 ft. BABY WHALE Round Bottom *Mahogany Lap Strake Tender —Seats Six.*

12 ft. BABY WHALE Mahogany *Step Plane—Seats Two.*

13 ft. BABY WHALE Round Bottom *Mahogany Lap Strake Tender —Seats Seven.*

14 ft. BABY WHALE Mahogany *Step Plane—Seats Two.*

14 ft. BABY WHALE Mahogany Semi-Runabout Type Step Plane—Seats Three.

15 ft. THE WHALER Round Bottom *Mahogany Lap Strake Family Runabout—Seats Nine.*

Such performance is a habit with Baby Whale mahogany step planes, the most popular of all racing hulls. Baby Whale enjoys a world-wide reputation for being a consistent winner and record maker. In riding comfort, seaworthiness and ease of control Baby Whale leaves nothing to be desired. Its staunch mahogany construction and minimum weight give decided racing advantages to Baby Whale owners. Win with Baby Whale! Order yours today.

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THE SECRET OF SUCCESS IN RACING

(*Continued from page* 158)

this case was Gene Pickard, who won both National Championship cups in Wilmington. That kid and myself prepared for that event three months in advance. We tested and experimented, adjusted and worked until there was no doubt in our mind that the outfit that he was to drive was as near perfect as it is possible to get them. He had driven in regattas throughout the country during the summer and had seen some of the keenest competition and he knew that barring trouble at the last minute he had the best chance of winning the Championship races. He drove what has later proved to be one of the greatest races in the history of the game.

"First—buy the right boat and motor. There are five different classes of motors built today—A, B, C, D and E. Make up your mind what class outfit you are going to race and get both a motor and boat in that class. In the free-for-all and marathon races I use one of my own boats—Herbst Special—and a Sea Horse 32. The 32 has the greatest speed and power and will stand up over a long grind. In a marathon I use this heavy boat, because I figure the water is bound to be rough somewhere along the line.

"Don't put a D motor on a B boat or vice versa or you won't have much success. It has been my experience that the outstanding drivers such as Helen Hentschel, J. E. Wilkinson, Al Buffington and H. Frazer, by sticking to one class such as B, C or D, got further in the game than the fellow who is constantly changing from one thing to another, usually just before the race.

"So that is the first thing. Make up your mind what you want to drive—then stick to it. If you want to drive and win in every class, I suggest you get two or three outfits. Don't go changing around, putting different motors on one boat. That has been one of the factors in the success we have had in racing Herbst boats—our combinations have always been perfectly balanced.

TAKE CARE OF YOUR OUTFIT

"After you have purchased the outfit you want, the next thing to do is take care of it, and have it all set by the time the race starts.

"First let's break in the motor. Most people have the idea that a new motor must be run 50 to 100 hours before it is ready to race. That is true with some of them. But from my experience the motor is either fast or slow according to the care of manufacture and you cannot bring some of them up to racing peak even if you ran them in for ten years.

"My policy has been to take a good motor and give it plenty of good oil, put on the racing propeller and drive it on the boat I am going to race for about a half an hour half open and then another half an hour wide open. Then it is as good as it will ever get. An incident to prove this occurred at the Miami Regatta last March. The first heat of the D race started about 11 o'clock in the morning. At ten o'clock I put my brand new motor—a Sea Horse 32—on a Herbst Giant boat. I ran it for an hour and went up to start the race. I even carried an extra man as ballast—yet I won.

"While running in your motor I suggest you put in new piston rings if you want to keep it at its peak and get the maximum speed out of it. When the motor is brought in after a race it should be thoroughly cleaned and put away.

"The boat is the next thing. A boat is just as important a factor in winning races as the motor and must be kept in perfect shape. Keep it out of the sun at all times when not in use. Store it on a level rack and rub it with steel wool and varnish it every so often. Do not leave it in the water for any long periods of time when not in use.

"Now after you get the boat and motor all set, the next thing to do is put them together and see what can be done. The first thing that you should have is a tachometer—that handy little instrument for measuring the revolutions per minute of your motor. This is most important as you must know how fast your motor is turning with the propeller you are using. I have seen many a fast outfit lose a race just because the driver didn't know what kind of a wheel to use. And you must have a tack to decide this. Some boats will travel faster with a higher pitch propeller turning the same r.p.m.; some will go slower turning the same r.p.m.; some spark plugs will wind the motor faster than others and many other things will happen. These things are most important and without a tachometer they are hard to determine. As to which plugs and which wheels to use—it is hard to say definitely. No two boats and no two motors are alike even if they are both of the same make. And there are so many other things that enter into the thing, such as the weight of the driver, how he drives, the type of water, etc., that the driver must figure a few of these things out himself.

"Your boat should also be equipped with a cushion, paddle, life preserver jacket with a collar (this collar is important as the object of it is to keep a man's head above water), steering wheel apparatus and remote gas and throttle control. These controls are not absolutely necessary, but I think you will find most of the drivers using them, for it is much easier to drive while looking forward all the time than to be constantly looking back and holding the steering arm.

PREPARING FOR ACTUAL RACE MOST IMPORTANT

"Now, about preparing for an actual race. This, in my mind, is the most important of all. Take for example the way a college track coach prepares his men for a race. The real hard work is finished up two days before. The day before the race the runner is not allowed to even see a track shoe—he is told to go home and forget about everything.

"So it should be with the outboard race driver. Get to the race in plenty of time. Put your outfit in the water and try it out. If it runs to your satisfaction take it out of the water and *forget about it* until time to go out for the race. I have never been to a race in my life but that the following doesn't happen:

"Some fellow with a very fast outfit comes down and puts his motor in the water. Then he grandstands—chases up and down the course wide open all morning long to please the crowds. Maybe he thinks he can scare the rest of them out by exhibiting a burst of speed. But he never scares the seasoned drivers—for they know just what will happen. That fellow will have something go wrong just before the race and he will either not be able to enter at all or will finish a poor fifth or sixth. It happens every time.

"A good example of the value of preparedness occurred in the Albany-New York Race. Jake Dunnell and I never touched our outfits the day before the race. We had them all ready *two days* before. I spent my time loafing around the floats the day before watching the others who were making eleventh hour preparations. And, I don't think that it is just luck or coincidence that Jake won the race and that I placed second right behind him.

YOU ARE READY TO RACE

"Now you are all set to start the race. The five minute gun has boomed and you and your outfit are all set. You are through preparing—you are ready to race. Here is where you use the horse sense. I must admit that right here there are so many things that come up in a race that it is only a matter of experience before anyone becomes really adept at it.

"The first important thing to know, however, is how and where to sit in a boat. First pick a position that will be most comfortable to you and which will get you low enough in the boat to keep the wind resistance made by your body as low as possible. Then find out the place in the boat to sit where your motor turns the fastest according to the tachometer. First move from one position to the other until you have found the exact place—then *mark it.*

"The start, while not so important in a long marathon race, is vitally so in a five or ten mile event. If a flag and gun start is used, maneuver into a good position and come up to the line so that you will cross it at full speed just as the flag goes down. This, I will admit, is hard to do the first time and requires a good deal of practice. Go back as far as possible and judge your speed so that when you are wide open you will hit the line just right. If you come up to the line slow and someone else hits it wide open, the fellow that is wide open will be several boat lengths ahead of you before you get your boat running. And a stern chase is always a hard chase.

"If it is possible to do so, I suggest you get two or three other drivers and make a lot of practice starts before you ever enter a race. It is surprising how this will help you to get the feel of things.

"If a clock start is used, that is a little different. Pay no attention to the gun, but watch both clock and flag. In the free-for-all race here at Wilmington last year, I got a beautiful start, but it has always been the contention that I beat the gun. As a matter of fact, I *did* beat the gun—but I didn't beat the flag and that is what counts. The rest of the drivers waited for the gun and it went off a few seconds late. Consequently, I was several boat lengths ahead of them.

Once you are away down the course, get into the lead if possible, for as I said before a stern chase is a hard chase. In turning at the buoys it is always best to be away from the buoy and turn in close back of it. Don't turn too sharp or you will probably go over and join the Hell Diver's Club.

"Once you are in the lead and going good, by all means leave the motor alone! A favorite habit with beginners and a few of the old timers is to try and adjust the needle valve to get a little more speed. Don't do it—for each time you do your motor starts running slower and slower. I won a race one time by simply thumbing my nose at the fellow in front of

(*Continued on page* 184)

The Triumphant March of . . .

LUDINGTON BOATS

"Flash Runs away with Outboard Race"
TORRESDALE, JULY 13th, 1929

"Lightning and Flash Win Honors"
MAYS LANDING, JULY 27th, 1929

"Lightning Strikes fast Pace to Land in Outboard Race"
STONE HARBOR, AUG. 3rd, 1929

"Gresh Scores 34th Win with Lightning"
WILDWOOD, N. J., AUG. 11th, 1929

WINNING RACES » « WINNING FRIENDS

Some of Ludington's Recent Records

TORRESDALE, PA. JULY 13th
1st . . . Class D . . . . . 5 miles
2nd . . . Free-for-all . . . 5 miles

CHESTER, PA. JULY 20th
1st . . . Class D . . . . . 8 miles
2nd . . . Free-for-all . . . 8 miles

MAYS LANDING, N. J. JULY 27th
1st in first and second heats Class B 5 miles
1st in first and final heats Class C 5 miles

MAYS LANDING, N. J. JULY 27th
2nd . . . Class D . . . . 10 miles
1st . . . Free-for-all . . . 10 miles

STONE HARBOR, N. J. AUGUST 3rd
1st . . . . Class B . . . . 3 miles
1st . . . . Class C . . . . 3 miles

WILDWOOD, N. J. AUGUST 11th
1st in first and final heats Class B 2 miles
1st in 2nd and final heats Class C 4 miles

SANTA BARBARA, CALIF., AUG. 15th
1st and 2nd . . . . . Class B 5 miles
Southern California Championship

« Write today for descriptive literature on the three famous Ludington Boats »

"LIGHTNING"
12 ft. Weight 95 lbs.
for smoother water
$235.00 . . INCLUDES CRATING

"BUCCANEER"
16 ft. V bottom Family-
Runabout, Fully equipped
$585.00 . . INCLUDES CRATING

"FLASH"
14 ft. Weight 145 lbs.
for rough water
$300.00 . . INCLUDES CRATING

"BUILT FOR A TWO-REEF BREEZE"

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Please send me without obligation literature and name of dealer nearest to me.

Name .....

Address .....

A Race Outside Staten Island

(*Continued from page* 157)

class B entrant among the ten drivers to finish the race.

Thousand of spectators had many vantage points from which to watch the grind as there are eight bridges over the course. Those who gathered at Midland Beach to witness the finish were kept informed by radio of the positions of the boats at different stages of the race. A Curtiss seaplane equipped with transmitting apparatus sent out details to a giant loudspeaker unit on the beach, and this in turn broadcast the news to the hundreds who were waiting to see the winners cross the finish line.

Officials from the A.P.B.A. were on hand with advice and assistance and the timing was handled entirely by F. W. Horenburger of New York. W. E. Willis, Secretary of the Middle Atlantic Outboard Association, supervised the registration and scoring. Commodore Arthur Bobrick of Pasadena, California, and western representative of the A.P.B.A., acted as official starter. Commodore Wm. Burke, Chairman of the Racing Commission of the M.A.O.A. likewise lent his cooperation.

	Racing No.	Name of Boat	Driver	Make Boat	Make Motor	Time
1.	N-154	Big Ben	Harold Chapman	Ben Hallock	Johnson D	1:04:50
2.	N-222	Acme Wasp	Harry R. Daw	Acme	Evinrude C	1:08:53
3.	N-224	Miss Glen Cove	J. H. Gregory	Blair & Edgerton	Evinrude C	1:10:14
4.	N-105	Lightning	Wm. Feldhusen	Boyd Martin	Caille C	1:23:24
5.	N-340	Gee Golly	H. A. Cunningham	Airships	Johnson D	1:24:45
6.	O- 24	Fairchild Aero	J. C. Smith	Fairchild	Johnson D	1:27:02
7.	N-121	Flying Fish VI	Ted Roberts	Airships	Johnson B	1:40:22
8.	N-334	Safety Craft	Alfred S. Leng	Helm Bt.	Evinrude C	1:48:45
9.	N-348	Water Witch	W. O. Davies	Curtis	Evinrude C	2:09:38
10.	08-572	Lillie Cute Craft	Henry Salig	Cute-Craft	Evinrude C	3:05:00

Commodore Mackay, O. K. Hunsaker and J. A. Talbot Jr. at the outboard races, Lake Elsinore, California

The Secret of Success in Racing

(*Continued from page* 182)

me when he looked back to see how close I was. Every time I did this he started turning the needle valve. I think he finished fourth or fifth.

"Therefore leave the motor alone and keep the boat on a straight course and avoid all sharp angle turns at the buoys. Cut them as close as possible, however. If the water is rough then you must know from previous experience where to sit and drive your boat for the best results. This also applies to smooth water.

"If your motor goes wrong in a race—you might as well figure you are out of it—that is unless it is a long marathon. I never carry any tools or shear pins in a short race—for if I do have something happen to me I just paddle out of the course and hope for better luck next time.

"I use a straight commercial grade of gasoline of a standard make and mix it with the best oil I can buy.

"So that is about all. If you win, don't brag about it and if you lose don't come in with a bushel basket full of alibis. If you use the time lots of drivers spend in bragging or handing out alibis to prepare and assimilate a little horse sense you will be a lot better off—and will win many more races.

"Just remember that it is the combination of the best man, boat and motor that wins the races—and even then most of us are charter members of the Hell Diver's Club!"

Outboard Notes

COLONEL GREEN OFFERS NEW TROPHY

Col. E. H. R. Green has authorized C. F. Chapman, secretary of the racing commission of the American Power Boat Association, to have designed a new trophy for outboard motor boats, the prize to be raced for annually at New Bedford, Mass., and to be known as the Round Hill Trophy.

The new trophy, to be similar in design to the famous Star Island Cup, now raced for each year at Miami Beach, will cost approximately $5,000 and will carry with it a replica, six of which will be provided at a cost of $1,000 each.

The deed of gift will specify that the trophy race will be open to Division 2 drivers only. Stock motors up to and including Class E may be used. The driver must enter through his yacht club and the prize will be held by that club for one year, at which time the original is returned and the replica is retained as permanent property. When the club has won the trophy twice in succession or three times altogether it will have the privilege of conducting races for the trophy in their own waters.

Colonel E. H. R. Green who has presented the Round Hill trophy for outboard competition

MINNEAPOLIS PLANS BIG REGATTA

What will perhaps be one of the finest regattas in the United States this year, and in any event in the central portion of the country, will be the regatta held Labor Day at Lake Minnetonka, Minneapolis.

There will be the regular class races, together with an 11-mile championship, and in connection with the outboard regatta, there will be races for the larger boats, such as Chris-Craft, etc.

Judging from present indications, there will be from 100 to 125 contestants in this regatta, each one of them with his heart set on winning the large 48-inch Speed Miller Trophy, which is one of the finest cups ever given for a race of this kind or at least one of the other trophies which have been donated, together with $1,000 to $1,500 in cash prizes.

Drivers from outside states and cities will be given every courtesy in the world, and are especially invited to attend, and bring their families.

Extensive plans are being made to make this an elaborate affair, which has now been made an annual event.

Entry blanks and information can be obtained from the Northern Research Industries, Minneapolis.

VANCOUVER OUTBOARD MOTOR CLUB

The British Columbia Gazette (published by the King's Printer, Parliament Buildings, Victoria) records the certificate of incorporation under the Societies Act, as of July 5, 1929, of the Vancouver Outboard Motor Club.

The objects of the Society are to encourage the building of light motor-boats with outboard motor attachment, and the operation of such craft by amateurs, and to encourage outboard motor-boat racing by the promotion of regattas, the giving of prizes and by any other means which may from time to time be determined by the Society.

they MIAMI HOOH MAGIC win again

Photo M. Rosenfeld

KIRK AMES diving to victory, HOOH-hull MISS JULIE

On June 30, 1929 a C-D-E- Special HOOH Racer won Class B Race in a marathon around Manhattan Island—a measured course of 29½ miles.

Write for literature on our racing hulls and the famous Ramseybout, the fastest and best made.

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SPLITDORF ELECTRICAL CO. OF NEW YORK
Distributors for New York, New Jersey and Connecticut
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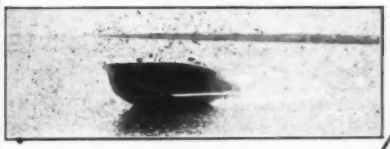
"CRANDALL CRAFT" RUNABOUT



Especially designed for Class D or E outboard motors—Quality construction thruout with the best in fittings and equipment. . . Dealers should write at once to secure benefit of new and limited sales contract for 1930.

F.O.B. at either Newport Beach, Cal. or Eagle River, Wis.

Price $1045.00
19' Model.

Address All Inquiries to Newport Beach, Cal.

CRANDALL BOAT CO.
NEWPORT BEACH CALIFORNIA
EAGLE RIVER WISCONSIN

Main Plant, General Office and Experimental Laboratory at Newport Beach, Cal.

Prices
Plywood - - $265.00
Mahogany - - $285.00

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The hull rides without bouncing or galloping, and does not pound in rough water. . . Write for detail description of this racing hull—and why it has made a world record for speed.

"CRANDALL COMET" RACING HULL

Thompson BEATS the World on BOATS

OUTBOARD MOTOR BOATS—A complete line of strictly up-to-date racing models, good for over 30 miles an hour. Also some entirely new models for general pleasure use with a speed of 20 to 26 miles an hour. Built strong and durable and absolutely safe.

CATALOG FREE!

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Order by Mail

Please state the kind of boat you are interested in

Two Large Factories

Rowboats $50.00 and up—The most complete line ever offered, at real money-saving prices.

Motor Boats—With or without Engine. Fast, handsome Craft at money-saving prices.

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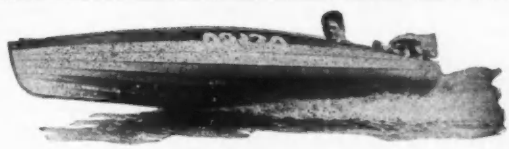

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The Sensation of the Season

PIGEON HOLLOW SPAR CO.
131 Coleridge Street East Boston, Mass.

OUTBOARD

BOATS MOTORS
PARTS REPAIRS
ACCESSORIES WINTER STORAGE
SPECIAL HULLS

Outboard Motor Headquarters

Bruno Beckhard

Flushing Bridge Flushing, N. Y.

a faster

FAIRCHILD AERO!

(CLASS D)

An experimental hull has been entered in 17 races and has won 9 firsts; 4 seconds; 2 thirds and one fifth!

Watch for Announcements!

FAIRCHILD BOATS, INC.
41 West 43rd Street New York City

Rules for National Outboard Championships

1. Location of Course. The course shall be located as determined by the National Outboard Racing Commission. Special consideration shall be given to the selection of a course which shall be best suited for outboard racing.

The 1929 races shall be held in the Central Division, those in 1930 in the Eastern Division and those in 1931 in the Western Division.

2. Dates. Races for the National Outboard Championship shall be held annually, not earlier than October 1st and shall be specified by the National Outboard Racing Commission not later than July 1st.

3. Classes and Divisions. There shall be classes for Classes A, B, C, D, and E, Division 2, stock motors. Division 1 drivers may compete in Division 2.

4. Length of Races. Each race shall consist of two heats of five or six miles each. The races shall be held on two days with one heat for each class each day.

5. Eligibility of Drivers. Only those who have finished first, second or third in their proper classes, in a race sanctioned by the A. P. B. A. or the M. V. P. B. A. during the current year, will be permitted to enter.

After 1929 only the winners of first, second or third places in a Divisional Championship shall be eligible to compete.

There shall be only one Divisional Championship Regatta in the Eastern Division, one in the Central Division and one in the Western Division during each calendar year. After 1929 only the winners of first, second or third places in a sectional or intersectional regatta shall be allowed to compete in a Divisional Championship Regatta. The identical or similar outfit must be raced.

6. Eligibility of Motors and Boats. Drivers may race only the same or similar outfits as qualified them under Section 5. Note: By "similar outfit" is meant a boat and a motor of identical manufacture, size, class, model, etc.

7. Racing Rules. Racing Rules of the National Outboard Association, as approved by the American Power Boat Association and Mississippi Valley Power Boat Association, shall govern. The actual supervision of the races shall be vested in the Club or Association handling the race as designated by the National Outboard Racing Commission.

8. Winners. The best total elapsed time for the two heats shall decide the winner in each class. Second, third, etc., places shall be decided in the same way.

9. Prizes. The prizes shall be those presented by the National Outboard Association together with whatever other prizes may be presented and approved by the National Outboard Racing Commission.

The winner in each class will be presented with a gold championship medal. The winner of second place, with a silver medal and the winner of third place with a bronze medal. There shall be no cash or merchandise prizes.

10. Expense Allowance for Drivers. Divisional champions in the Eastern, Central, and Western Divisions in Classes A, B, C, D, and E shall be entitled to receive from the National Outboard Association an amount of money necessary to pay for the freight on one boat and first-class transportation ticket for one driver from their home address to Peoria and return. In the event that the champion in any class in any division does not require such expense funds from the National Outboard Association, then the respective divisions shall have the privilege of sending their second-place winner on the basis of the above expense allotment. In no instance will the expense of more than one driver in a class or one boat in a class be paid under this arrangement and expenses are limited strictly to cost for freight transportation of boat and first-class railroad transportation of the driver.

Note: It is hoped that Divisional, Sectional and local organizations will encourage their best drivers to enter the National Championships and make provision so that it will be possible for the winners of their local sanctioned races to be present and compete.

11. Titles. The winner of the respective classes shall be known as the National Outboard Champions until next event.

Note: The American Power Boat Association or Mississippi Valley Power Boat Association will not sanction any other event or events to be known as the National Outboard Championship and that the holding of Sectional and Divisional Championships will be encouraged.

12. Competing in Larger Classes. Outfits eligible for a given class shall not be permitted to compete in a larger class.

13. Protests. Protests as to the actual handling of the race and conduct of drivers therein shall be decided by the local race committee appointed by the American Power Boat Association or Mississippi Valley Power Boat Association. Protests as to the eligibility of drivers, motors and boats shall be decided by the National Outboard Racing Commission.

14. Entries. Entries must be received by the local race committee at least one week in advance of the date set for the races except those entries specified in Section 10.

Entrants shall note on the entry blank the name and date of at least one sanctioned race in which they have won first, second or third place, giving full particulars of hull and motor record, manufacturer's number, class, etc. They shall race the same boat and motor or a similar outfit, that is, a boat and motor of identical manufacture, size, model, etc., in the National Championship Event.

15. Changes in Rules. These rules may be changed or amended upon majority vote of the National Outboard Racing Association, but no change shall become effective within six months of date change is made and notice given to Board of Directors of National Outboard Association.

16. Inspection of Motors. Motors winning first, second and third places shall be inspected by the Inspection Committee appointed by the National Outboard Motor Trade Association.

Racing in the High Sierras

(*Continued from page* 159)

"Me take swim anyway, so what's the diff?" Chic said as he came alongside the Judges' barge.

Barnacle Bill, true to his name, sought the depths and barnacle-like clung to the bottom of his hull until rescued.

If some outboarders would take a course in practical psychology and learn the potency of words, names and their numerical vibrations, we would not see such names as: Cuspidor, Hell Bent, Suicide, and Bronchitis. When Loretta Turnbull changed the name of her boat from Miss Hezy Tate to Sunkist Kid she began to go to the front, and she admitted to the writer that that is just what the boat did—hesitate. What's in a name? Ask the dog with a bad one.

The winner of the Class C event, having no number profered the excuse to the referee that he had worked on his motor all night while his mother painted the hull. That's the spirit of the outboard sport.

RESUME OF THE RACES

Class B—3 Miles

	Time of Heats		
	1st	2nd	3rd
Crandall Comet, John Adams.....	7:25	7:23	7:27
Good News, Bob Robesky.....	8:08	7:53	8:00

Class C—3 Miles

Scandal, Clark Anderson.....	7:15	7:17	7:19
Crandall Comet, John Adams.....	7:30	7:27	...

Free-for-all—12 Miles

1. Ketchup, Frank Helm, Jr.
2. Blue Streak, H. G. Ferguson
3. Day Sea Horse, Chas. Day

Sea Island's Outboard Regatta

(*Continued from page* 164)

which C. H. Meloone of Pine Castle, Florida, was the winner. His average speed was 39.25 m.p.h. Second place went to H. M. Fraser of Auburndale, Florida, and R. H. Bolland of Savannah, Georgia, placed third.

F. R. Robertson of Sea Island Beach driving at an average speed of 33.8 m.p.h. won the six-mile race for displacement runabouts; D. H. Burns of Jacksonville, Florida, placing second and R. H. Bolland, third.

The last event was a six-mile championship free-for-all for outboards with no restrictions as to boat or motor. A great deal of interest in this race was exhibited among both the spectators and the contestants. The Championship Cup was won by H. M. Fraser at 39.3 m.p.h. and second and third places were won by George A. Jones, Jacksonville, and Chestnut Evans of Darien, Georgia, respectively.

There were two lady contestants—Miss Louise Turck and Mrs. B. E. Lamb, both of Jacksonville, Florida. Miss Turck suffered the misfortune of overturning in the third event, while she was running well up among the leaders. There were also two other spills during the afternoon, the weather and water conditions being ideal. Many other prominent racing drivers participated in the events.

All contestants, officials and many guests of the members of the Sea Island Boat Club were entertained at luncheon immediately following the speed trials which were held in the morning. After the last event, an interesting demonstration of aquaplaning was given by Gladys Lindsey, swimming instructress at the Sea Island Casino Club, Sea Island Beach. All visitors were the guests of this club during the evening at a dance.

A Champion in Every Phase ~

SPEED with absolute safety. Restful comfort without sacrifice of trim hull lines. Distinction in appearance found only in other motorboats at a much higher price. Standard equipped with all the items that you must buy as expensive accessories on most motorboats, excepting motor. And above all, the advantages of straight line production economy without any lessening of high quality. These are but a few of the things you get when you buy a Dee Wite all-mahogany runabout.

See the Dee Wite. Look at its honest, sound construction. Run your hand over its smooth-finished mahogany hull. Test the deep, luxurious cushions. Look at the gleaming hull fittings. Try the easy automobile-type control. Ride in a Dee Wite—drive it yourself—put it to any test. You'll agree that it's the greatest boat of its kind in the world. Commercial Credit deferred payment plan makes purchase easy. Call your Dee Wite Dealer today.

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ALL-MAHOGANY PLEASURE CRAFT

"next year I will handle HOOTONS"

DO IT NOW! next year the other follow may have the HOOTON franchise. I am signing new dealers now even faster than at mid-season—the result of proven merit and salability of the product. You are safe in buying a HOOTON **now** for demonstration and winter display; for the hulls are **just right,** and no important changes will be made for 1930! My proposition is businesslike; write for it.

GORDON B. HOOTON
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Get a Mullins and you've got a boat that will give you season after season of sheer delight. Take it anywhere in any weather. It can't sink . . . will never dry out or open at the seams like a wood boat. Write for details.

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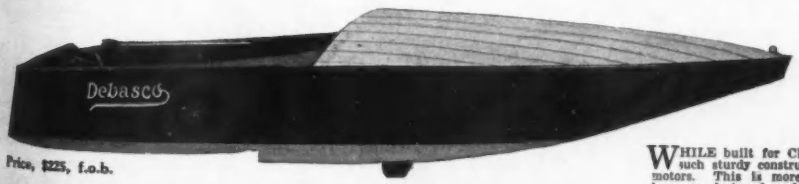
The STEEL KING DE LUXE

DEBASCO JUNIOR — *New Class B Racer*



Companion Boat to the Famous DEBASCO CHAMPION

Price, $225, f.o.b.

Length, 10 ft.; Beam, 48 in.; Weight, 115 lbs.; Transom, one-piece Philippine Mahogany. Sides, one-piece Philippine Mahogany. Bottom, Philippine Mahogany—battened. Frames, spruce. Decking, highest grade blue and gold Fabrikoid. Fastenings, copper rivets, brass screws, brass rods, and mahogany knees. Finished with several coats of Valspar Varnish.

WHILE built for Class B racing the DEBASCO JUNIOR is of such sturdy construction that it will carry with ease the larger motors. This is more than a one season boat. The bottom has been so designed and the step so arranged that the boat planes with ease and while planing only a very small portion of the bottom is in the water, eliminating resistance. We predict new records with this boat.

Write today for full particulars and ask about our Easy Time Payment Plan.

DELAWARE BAY SHIPBUILDING CO., Inc., Custom Yacht Building, Leesburg, N. J.

WASP WINS!

Louis Heupel of Cleveland driving standard Acme Wasp powered by Evinrude Speeditwin showed his wake to a field of brilliant contestants to win the 66 mile Marathon from Sandusky to Cleveland, Sunday Aug. 11th.

Nor was this race a pleasure jaunt because it was run in very rough water of Lake Erie, noted for its sudden squalls. This is conclusive evidence of the Speed and Stamina built into Acme Boats. If there is any doubt left in your mind read over the other records below.

ACME VICTORIES

Huntington, W. Va., R. W. Erdlitz, July 4th, Class C, 1st. Free for all, 1st.
Lake James, Ind., Geo. Walther, July 29th, Class C, 1st. Free for all, 2nd.
Cincinnati, O. G. Klahm, Aug. 4th, Class B, 2nd.
Lake James, Ind., Geo. Walther, Aug. 26th, 1st. 100 mile Marathon.
Cincinnati, O., Geo. Walther, R. Smith, May 30, Class B, 2nd and 3rd. Class C, 1st. Free for all, 2nd.
Dayton, O., R. Smith, June 9, Class B, 1st and 2nd. Free for all, 1st.
Dayton, O., R. Smith, June 23, Class B, 2nd. Free for all, 3rd.
Conway, S. C., A. S. Herbert, May 30, Class C, 1st.
Clear Pond, S. C., A. S. Herbert, June 20, Class B, 1st Class C, 1st. Free for all, 1st.
Columbia, S. C., A. S. Herbert, June 25, Class C, 1st.
Clear Pond, S. C., A. S. Herbert, July 4th. Free for all. 1st.
Chippewa Lake, O., R. R. Evring, June 27, Class C, 1st, 2nd and 3rd.
Put-in-Bay, O. J. Pettit, July 7, Class C, 1st, 4th, 5th. Free for all, 2nd, 4th and 5th.
Staten Island, N. Y., C. F. Carlson, July, July 28, 45-mile Marathon, 1st.
Cleveland, O., Louis Heupel, July 28, 66-mile Marathon, 1st.
Cincinnati, O., J. P. Coburn, July 10th, Class C, B. Motor, 2nd.
Aurora, Ind., J. P. Coburn, July 17th, Class B, 1st. Class C, 2nd.
Bedford, Ind., Aug. 1st, Class B, 1st.

Write for Illustrated Literature

THE ACME BOAT COMPANY

125 Oak Street, Miamisburg, Ohio

WHITE CAP, A. S. Herbert, of Orangeburg, S. C., who has won many prominent races in the south with his Acme WASP, and Johnson Sea Horse.
WHOOPEE, Louis Heupel, and his outfit, tired but with a smile that won't wipe off.

Bill Frey—A Veteran Racer

(*Continued from page* 160)

hand during the race, in return for which he got an occasional opportunity to take the wheel. There Bill Frey gained a good deal of information about boats which has no doubt been a considerable factor in his record as an outboard motor boat racer.

In 1920, while at Madison, Wis., Eleanore, a fast inboard craft, was Frey's favorite. In fact, his interest continued to be principally in the inboard racing boats until outboard racing motors developed the present high speed complex.

When questioned regarding the outboard motors which Frey has raced, he stated that he had confined all of his outboard motor boat racing to Eltos. While he had established an enviable record in outboard racing prior to 1928, it was last year that he came into national prominence. Due to a knowledge of motors and boats, as well as unusual skill in driving, particularly in rough water, he definitely established a place for himself among the leaders of the outboard racing game toward the latter part of last summer.

On September 4, driving Uniplex, his famous black and white striped Century Cyclone, powered by an Elto Hi-Speed Quad, he won the Free-for-all in the mile trials at Detroit with a speed of 37.65 m.p.h. This was an outstanding victory.

On September 9, at Fox Lake, he took first in the Free-for-all Class D. At Danville, Illinois, on September 16, he finished a close second to Cowboy Bill Higgins of Racine. September 23 held further honors for him with a first in the 6-mile race held at Milwaukee.

Peoria on September 29 gave him third place in the special 5-mile race, Frey finishing after Ralph Harrington of Wilmette, and Eldon Travis. On September 30, however, Frey took first in the 5-mile race at Peoria. A week later he finished second place at Wilmington, North Carolina, in the 4-mile amateur, and took second place in the 4-mile Class D open. The following day in the Grand Free-for-all 4-mile race, Frey led the entire field.

But Frey isn't just a short distance or spurt driver. He has endurance, and he demands endurance of the motors and boats he drives. The winning of the 200-mile grind at Peoria, July 4, proves that conclusively. His victory in the 50-mile Marathon at Madison, Wisconsin, last summer, when he won the $1,000 Wellman Trophy, also attests to his long distance driving ability, as does winning third place last September in the 202-mile Peoria to St. Louis Marathon.

The victory which Frey cherishes most and which is no doubt the greatest tribute to his ability as an outboard motor racer, is the winning of the National 200-mile Marathon held at Peoria on July 4. Surely, there has never before been a time in all of the centuries of boating when boat, man and motor were called upon for such a display of endurance, driving ability, and speed, mile after mile in rough water whipped by the wind and churned into a treacherous mass by the wakes of sixty odd high speed boats.

Frey is looking forward to new laurels, using the Elto-Century combination for which he is famous. Boating fans throughout the country will be watching him. He is without question an outstanding outboard racer.

LAMB BECOMES JOHNSON SALES EXECUTIVE

The Johnson Motor Company announces the appointment of H. A. Lamb as Sales Manager of the Industrial Division in charge of merchandising the Johnson Portable Self Priming Drainage Pump and the Johnson Ultimotor.

Mr. Lamb comes to Waukegan after a wide and varied experience in the construction and industrial field, having been associated with the Chicago, Milwaukee and St. Paul Railroad in the capacity of Assistant Constructing Engineer, with Fairbanks, Morse Company in charge of sales and installation, and with the McGraw Hill publications in the capacity of editor. After this work he returned to the construction field and previous to his coming with Johnson he served with the Climax Engineering Company and the Barber-Green Company, manufacturers of road building machinery.

OUTBOARDS AID RED CROSS RESCUE WORK

The outboard motor is of inestimable value in cutting down the death tolls in the Potomac River, according to Commodore W. E. Longfellow of the National Red Cross. Emergency first-aid stations have been established along the river bank and outboard motor-powered craft placed in service to supplant the old-style rowboats. The outboards aid rescue parties in quickly reaching drowning people. "Thus far this season," said Commodore Longfellow, "our outboards have been the contributing cause to the saving of several lives."

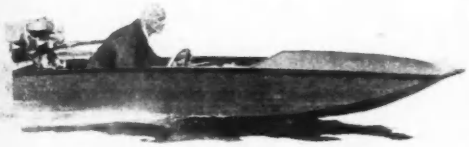
Advertising index will be found on 3rd last page

ATLANTIC RADIO & MARINE CO.
INCORPORATED

20 BROOKLINE AVENUE BOSTON, MASS.

New England Headquarters for

HOOTON BOATS



Four great Hooton outboards. One for every purpose. Model R, a Class B Racer. The Safety Plane, a pleasure speedster. The Wildcat, an all motor racer. The Vee Plane, a family runabout. For winning performance, either short snappy races or gruelling marathons, Hooton tops the list. Write for full details on this popular line of outboards.

Distributors for

DEE WITE, LYMAN and HERBST
SKIBOARDS, LOCKWOOD MOTORS
CORSAIR CRUISERS
CHRYSLER and STEARNS ENGINES
UTE GARMENTS
KASSON LUBRICATING COMPOUND
DUPLEX MARINE OIL

$98
F. O. B. FACTORY

THE REAL SPORT OF OUTBOARD MOTOR BOATING IS TO BUILD YOUR OWN BOAT

The famous Bossert Pirate Kid may be bought unassembled and built by any amateur—any boy with only ordinary knowledge of every-day tools can build one.

This is the boat that is breaking all records with B, C, and D motors.

World's Champions such as Malcolm Pope, Jack Kerr and many others are now driving Bossert Pirate Kids in all their stunts and races. They know good boats when they see them.

Walter Peterssen built his own boat and has won many big races as well as broken records in time trials in the boat he built himself.

Ask Pop to let you build your own—a lot of fun and you surely will like it much better than if you bought your boat all completed.

Many boys have already built their own Bossert Pirate Kid—A wonderful model.

The price is $98.00 F.O.B. factory and the freight will average less than $5.00 most any place in the U. S. Send in your order now.

You can also earn one of these boats for nothing for after you purchase your boat you are listed with us as an agent and then from every order you get for us you receive a bonus of 10% so you see if you are able to induce only 10 other boys to join you, you get your own boat free.

Write now for order blank and further particulars.

LOUIS BOSSERT & SONS, INC.
1301 GRAND STREET BROOKLYN, N. Y.

COMBINATION POST LIGHT AND FLAG POLE SOCKET

For Class I and Outboard Boats
The sturdy one-piece construction of this light makes it ideal as a towing post. Made in one-piece casting; brass or aluminum highly polished.

T. & B. Type B. & B. Type

We save you money. Write for catalog showing prices and be convinced. We specialize in repairing propellers.

Racing Propellers for Outboards

BRYANT & BERRY PROPELLERS
1382 LILLIBRIDGE STREET DETROIT, MICH.

CAPE COD BOATS

Before purchasing send for our complete catalogue and low price

CAPE COD BABY KNOCKABOUT
This model is brought out to meet the demand of various yacht clubs and individuals, a number of yacht clubs having adopted this boat as a standard racing class. Some clubs have fleet of 30 boats. All Cape Cod boats are standardized built.

POWER DORIES AND LAUNCHES
20 foot Motor Dories. Safest sea-going family boat built.
20 foot Runabout. Four cycle, four cylinder engine. A beautiful job.

ROWBOATS
10, 12, 14 feet long. Of various models. Strong, well-built and safe.

OUTBOARD MOTORBOATS
Various models for high speed, general utility and sea-going.
Boston Showroom at New England Marine Sales Co. 883 Commonwealth Avenue

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four AIRSHIPS Aces

The Aristocrat of Outboard Hulls

Complete Descriptions on Request
Sole Distributors

V. WITHSTANDLEY & CO., INC.
11 Central Park West at Columbus Circle, New York

CUTE-CRAFT

The Big Winner

THE recent Newport Regatta provided an opportunity to witness the brand of performance that has ever distinguished Cute Craft in the outboard field — in fact, a performance that can leave no doubt of the qualities which emphasize Cute Craft superiority from every viewpoint of speed, dependability and seaworthiness.

At the regatta mentioned, it was recorded that the Cute Craft Sea Horse won a *walk away* victory in the family runabout race, proving that a family outboard can be comfortable, safe, and not necessarily slow. Another outstanding victory was that of the *Green Flash* (Cute Craft Meteor) when it won the Class B events in both Divisions 1 and 2 taking FIRST PLACE IN EVERY HEAT FOR BOTH DIVISIONS. . . . Indeed a faultless performance!

The perfect score of the *Green Flash* is characteristic of the perfection attained in the building of Cute Craft; and it goes a long way to prove that the Bi-plane, the Meteor and the Sea Horse have inbuilt qualities that account for their unrivalled performance, and for the fact that they are the Big Winners.

A descriptive catalog awaits you. Write today!

CUTE CRAFT INCORPORATED

FALL RIVER, MASS.

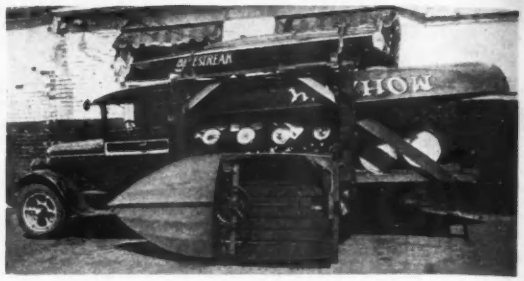
"Popularized by Their Performance"

The Month With the Outboards

(*Continued from page* 174)

figured and at the same time a new high valuation was placed on this type of property by the price paid for the plot involved.

"The deal conveys the former Billings estate to William A. King. The property comprising 3½ acres, fronts the river for 190 feet. King, who entered the motorboat business this spring, made the purchase chiefly for business reasons. He will start work at once on a large dock which he will use as a headquarters for the sale and demonstrations of boats. He will also build an anchorage for other outboard motor owners, as the rapid increase of this type of craft has created an unusual need for some sort of docking and storing facilities. Because of the unlooked for popularity of boating, river front property in all sections of the country is skyrocketing in value."



How four outboard owners solved the problem of overland transportation. A special rack built on the truck body holds the four hulls, motors and a supply of gas and oil

2,500 MILES BY OUTBOARD

Twenty-five hundred miles is a long trip to return from school—especially when it is undertaken in an open 16-foot outboard boat. But two boys from Mt. Dora, Florida, decided that this means of transportation offered an attractive change from the more conventional railroad travel and accordingly set out about the middle of July from Huron, Ohio, in a open family boat propelled by a four-cylinder outboard motor.

The adventurous young men are Harry Clark and Frank Morley, members of the Mt. Dora Yacht Club. They attend school at Huron, Ohio, which is situated on the southwestern shore of Lake Erie, near Sandusky. Their route took them along the south shore of the lake, where they encountered some rough going in a gale of wind, but they weathered this successfully and found smoother water in their run through the Barge Canal and down the Hudson River, although the choppy waters of Oneida Lake also gave them a thrilling experience.

At the time of this writing, they are located in New York, having covered about 700 miles of their journey. Their intention is to proceed south along the inside route to Florida, and if they go no further than their home town of Mt. Dora, they still have some 1,400 miles to cover. If all goes well, however, the probability is that they will continue right on to Miami, a total distance of approximately 2,700 miles. Their boat is very appropriately christened Homeward Bound.

ANNOUNCING A NEW MOTOR

Meeting the demand for a powerful and compact outboard unit especially designed for the requirements of the sportsman who needs a small portable outboard motor which can be folded up and carried about conveniently, the Caille Motor Company is now offering the Caille Companion, their model 14.

The Companion is so designed that it may very readily be taken apart, in much the same manner that a shotgun is taken down, and when folded in this way it occupies a space of less than fourteen by twenty-two inches. Inasmuch as it is to be a sportsman's motor, a special feature has been incorporated into the design in the form of an auxiliary mechanical pump which can be quickly attached and which makes it possible to troll all day long at minimum speed with the assurance that the motor is being supplied at all times with plenty of water.

With a bore of 2¼ inches and a stroke of 1¾ inches, the Companion has a piston displacement of 13.916 cubic inches and a speed range from 400 to 4,500 r.p.m. It develops a maximum of 6 h.p., which is ample for driving all types of heavy pleasure boats at a good rate of speed.

Advertising index will be found on 3rd last page

The FAYBOW STATIC Model Which Broke a World's Distance Record

IN PERFORMANCE...APPEARANCE...and COMFORT these FAYBOW Models Offer ALL that Could Be Desired

The FAYBOW "STATIC"

WINNER of the recent Finger Lakes Outboard Marathon—setting up a new world's record for the 68-mile course. Justifiably classed as "the fastest hydroplane afloat." A seaworthy racing craft that is staunchly built to withstand the terrific strains of exceedingly high speeds. Made in two lengths—13 ft. 9 in. (weight 135 lbs.) and 11 ft. 9 in. (weight 85 lbs.)

The FAYBOW "MIDDY"

WITHOUT exception, the finest outboard craft built today. Truly named "the aristocrat of outboard craft." Designed and built in the manner of larger and much more costly boats. All mahogany—handsomely finished and fitted. Sturdily built to hold its own—comfortable and dry—in rough water. Capable of 27 mile speed or faster. Quick on the turn-about and economical to operate. Length 16 feet; beam, 52 inches; draft 5 inches.

Write for full information. Ask about our Easy Payment Plan.

FAY & BOWEN ENGINE COMPANY, 104 Lake Street, Geneva, N. Y., U. S. A.

FAYBOW

The
Outboard Motor Boat Book

MoToR BoatinG's

IDEAL SERIES—VOL. X

Plans, Specifications and Building Instructions for Over 30 Craft of Various Types and Sizes Suitable for Powering with Outboard Motors

THIS is the book which everyone has been waiting for. The scope of the craft, plans, specifications and building instructions which are printed in this volume, is very broad. Everything is included from the smallest rowing dinghy suitable for a Class A Outboard Motor up to the fastest Class C racing hydroplanes. Plans of some of the outboard racing boats which have established world's records are included. All of the boats are easy for the amateur or novice to build. If you wish to use the boat on the seaboard or inland waters or on some lake or smaller body of water you will find a design which is suitable. If you are partial to sail and use the outboard as an auxiliary to get home with should the wind fail, you will find a number of designs of these boats, too. The plans and designs are particularly clear and easy to understand and no previous knowledge of boat building is necessary to turn out a successful boat. You should not fail to have a copy of this book.

A complete summary of the contents of Volume X follows:

Contents of

THE OUTBOARD MOTOR BOAT BOOK

Skipper, 8-Foot Pram Type Outboard Boat
Baby Stepper, 14-Foot Class C Racing Hydroplane
Apple Sauce, 10-Foot Racing Hydroplane
Toto, 16-Foot Stepless Outboard Boat
Jazz Bug, 12-Foot Hydroplane
Pirate, a 39-inch Model Sloop
A 12-Foot Dinghy
Buster, 12-Foot Sailing Dinghy
Smarty, 14-Foot Outboard Sailing Utility Boat
Jan, 9-Foot by 3-Foot Sailing and Outboard Boat
Snapper, 12-Foot Round Bottom Sailing Dinghy
Whiz, 13'6" Hydroplane
Sue, 15-Foot Motor Skiff
Whiz, 16-Foot Baby Buzz Outboard Speedster
Transco, 18-Foot Outboard Runabout
Sharpie, 9-Foot Flat Bottom Dinghy
Kingfisher, 14-Foot Fishing Skiff
Canvasback, Outboard Canoe
Gannet, 12-Foot Sailing Skiff
Green Diamond, 12-Foot Outboard Hydroplane
Nonpareil, 14-Foot Outboard Cruiser
Sea Shell, 17-Foot Service Boat
Marybelle, 14-Foot Runabout
Flattie, 16-Foot Utility Boat
Edith, 15-Foot Vee Bottom Boat
A 10-Foot Scow Type Boat
Rinky-Dink, Seven Feet of Boat
Handy-Andy, an 8-Foot Sailing Dinghy
Carryme, a Utility Dink
Takapart, a Folding Punt
Anabelle, The Dink for Aragon II
Nymph, a 10-Foot Sailing Dinghy
Dancer, a 12-Foot Dink
Scandal, 14-Foot Outboard Motored Boat
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Gozo, 16-Foot Auxiliary Sloop

Send for circular describing all of MoToR BoatinG's books on motor boat building, operation and navigation.

Price, $3.00 ***Mail Your Order Today***

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MoToR BoatinG

57th Street at Eighth Ave., New York City, N. Y.

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A Serviceable Family Runabout

Comfortable — Safe — Fast

WaterWitch

"Sweeps the Water"

$373

Complete Except for Motor

EXCELLENT DEALER OPPORTUNITY IN THIS POPULAR CRAFT

NO dealer's line of boats is complete without the Water Witch, the smartest mahogany outboard for its size, speed and design. A sixteen footer of five passenger capacity, the Water Witch has many exclusive features. The two forward seats have convertible backs which may be turned over or dropped down to form sleeping accommodations. The driver's seat is of the swivel and sliding type, permitting right or left hand driving. Luxuriously upholstered with Zapon Spanish leather and trimmed with nickel fender streaks and hardware, this boat is at home in company with the most expensive craft.

Dealers: Your territory may still be available. Write today for our attractive proposition.

DACHEL-CARTER BOAT CO., INC. BENTON HARBOR MICHIGAN

HERBST BOATS WIN

Another Record

CLASS A—DIVISION I
MILE TRIAL
25.96 M. P. H.

THIS record added to the long list of Herbst laurels was made July 22nd at Cobossecontee, Maine by Chas. Harris driving a Herbst Special A Racing Hull, powered with a Lockwood Ace. Write today for literature on Herbst racing hulls and family runabouts.

Attractive Deferred Payment Plan

HERBST BOAT WORKS, INC.
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ABSOLUTE SAFETY

Style No. 9

Only Kapok filled life preserver used on U. S. transports during World War

You can't sink while wearing a Kapo Coast Guard Jacket—4 times more buoyant than cork, yet soft and yielding to wear. Windproof, warm. Made according to Government specifications and approved U. S. Steamboat Inspector. Worn by Byrd, Chamberlin, and other successful transatlantic fliers. Removable Celbasilk inner padding. Has two pockets.

Specify O. D. or white. One size, easily adjustable from 36" to 44", price $13.00. Catalog free.

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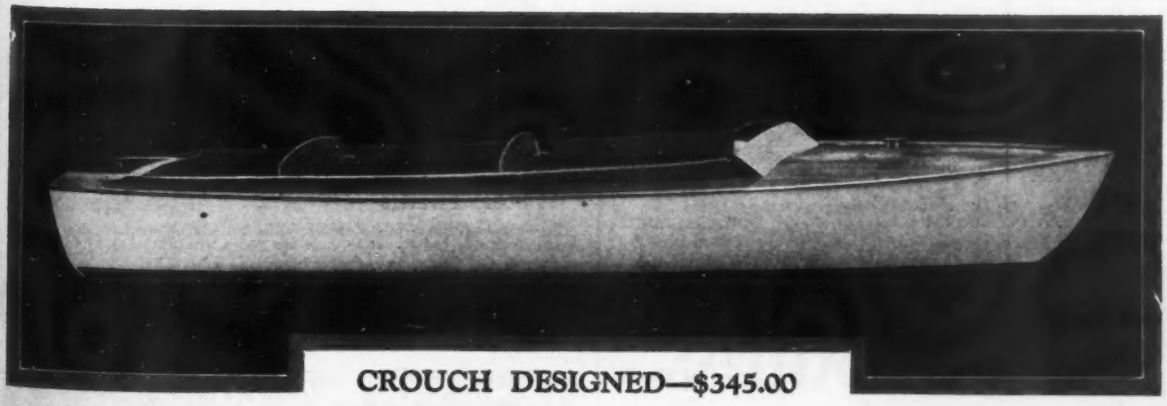

CROUCH DESIGNED—$345.00

GEORGE F. CROUCH INCORPORATED **MIDDLETOWN, CONN.**

ASHBRIDGE

K. D. Flyers built by Allen Smith at Boisser City, La., win five American records.

WILDFIRE

Finished Hulls $150.00

Finished Hulls $150.00

Officially World's Fastest C Hull 41.01 Miles

Rigor II, 5 Miles Div. One, Class C 37.42 Cross Lake, July 21st

Miss S & L, 5 Miles Div. Two, Class B 36.45, Cross Lake, July 21st

K. D. Flyers run wild at Shreveport, Aug. 5th. Win eight races and two more records

Class B—72 lbs., 11'9" x 44" Class C—79 lbs., 11'9" x 47"
Class D—95 lbs., 11'9" x 50"

Why not assemble this Speedy craft? You save freight. Knock-down $68.50. Partially assembled $72.50. All materials same as factory built and complete instructions furnished. Buy direct from factory. Greatest values ever offered. Full size paper patterns of each model $10.00.

We have no racing drivers or promote any boats or engines.

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Most speed per H.P.

Announcing the Exclusive National Distribution of

AKWA-SKEES

The sporty self-balancing double aquaplanes—

SKIBOARDS

The outboard-motor-propelled aquaplanes—

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Scientifically designed, beautifully balanced, for towing—

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Standard type and genuine Waikiki Model—

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A game played on Akwa—Skees, Skibords and Aquaplanes.

Speed Model Akwa-Skees

Interesting Propsition for Outboard Boat and Sporting Goods Dealers
Write for details and discounts.

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72 HUBBARD STREET BROOKLYN, N. Y.

National Distributors of Water Sports Equipment

Stunt Riders and Equipment for Water Sport Acts Supplied for Regattas, Resorts, Exhibitions and Fairs.

Skiboards make thrilling races.

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The Bullet **Two models: Junior, 11-foot; Senior, 12½ foot. Genuine African mahogany. Power recommended, Class B, C, D and E motors. Speed, 30 to 50 miles per hour.**

The Diana **16-foot, 4-passenger runabout. Beautiful fore and aft decks Power recommended, Class B, C and D motors.**

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Write for catalog and name of nearest dealer

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St. Clair Self-Bailer

Keeps the Bilge Dry

YOU don't need to worry about bilge water when your boat is equipped with the simple and positive St. Clair Self-Bailer. More speed too by admitting air beneath the hull, thus releasing the bottom suction. It operates automatically with the starting and stopping of the boat. Made entirely of bronze. Only two moving parts. Requires no adjustment, oil or upkeep. The St. Clair is the most effective and inexpensive self-bailer for cruisers, runabouts and outboard boats. Write today for catalogue; state whether for inboard or outboard. Sold by dealers and boat builders everywhere.

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PENN YAN BOATS

Water Thrills

Speed and pleasure—and a set of thrills entirely different from anything you have ever had on land—these are yours with an outboard boat!

For 20 years, Penn Yan has been building these things into its boats—"WATER THRILLS," the new 1929 48-page color Catalog will show the whole group, and a great variety of other small boats. It's a boat book you'll surely want. A copy is your for the asking. Write for it today!

PENN YAN BOAT CO., Inc.
15 Water Street - Penn Yan, New York

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Equal Value *on this* Boat *and save 2/3*

Keep the boat builder's profit yourself—and have a better boat.

You choose the type of craft—we send you the parts, cut to size, numbered and finished. You assemble them according to instruction sheets, and there's the boat you have always wanted. Built as the architect planned it, beautifully finished, seaworthy—a boat to be proud of.

And you can have your choice of 55 models—Cabin Cruisers, V-Bottom Runabouts, Outboard Speedsters, Hydroplanes, Rowboats, Sailboats—any type that your fancy desires—and all at a 2/3 saving.

Act Now! Send 10c for illustrated catalog. Choose the craft you want and enjoy summer's sunny days.

BROOKS BOAT COMPANY, INC.
Dept. 3H, Saginaw West Side, Mich.

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200 MILES to Victory *with* STANNUS SPEED WHEEL

BILL FREY with a STANNUS Speed Wheel on an Elto motor drove his Century boat to victory against a large field in the 200-Mile Independence Day Marathon at Peoria, Illinois. Thus again the Stannus wheel demonstrates its ability to win where competition is keen. Be a winner!

Price $10

We have also developed Stannus Service Wheels for Class C, D and E motors for use with runabout type hulls. This new service wheel gives maximum motor efficiency with or without load. Price of Service Wheel $12.00.

Write today for further particulars.

STANNUS PROPELLER CO.
3401 Illinois Street Detroit, Michigan

Every Genuine Stannus Wheel is stamped STANNUS

"You'll appreciate UTE on the cool days in Sept. and October."

For YACHTING, MOTOR BOATING and OUTBOARDS

ONE-PIECE Waterproof and Windproof of double texture cloth with rubber vulcanized in between. Famous Rustproof Hookless Talon Fastener at front and sides of legs. Waterproof elastic at wrists, ankles and waist. Small spat to cover shoe. Easily put on—weighs but 36 ounces. Detachable Hood.

Khaki Color—$12.50 White Color—$16.50

"UTE"

The All-Weather Utility Suit

(Patent Pending)

If your dealer does not already stock UTE, send us your check and measurements and we will ship you UTE postpaid.

Sizes—Small, Medium and Large. Extra Large 10% extra.

UTILITY GARMENT CORP. (Dept. M.B.)
309 Arch Street Philadelphia, Pa.

DISTRIBUTORS and DEALERS: Write for full details of this new garment.

Safe Boats *that are FAST!*

LYMAN Clinker-Built craft have won the plaudits of the boatwise wherever they are in use; for it is a FACT that a LYMAN can go out and give excellent account of itself regardless of weather or sea. The reputation which has been ours throughout half a century is your best insurance that a LYMAN fast outboard or speed tender offers the utmost in speed, service and satisfaction.

We are originators of Clinker-Built Speed Tenders and Fast Outboards!

LYMAN BOAT WORKS
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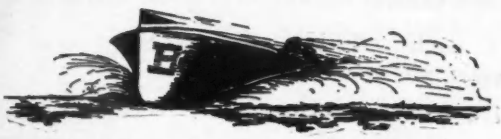
BALUBRICOTED CUTE-CRAFT FEATURES NEWPORT REGATTA



Want More Speed For Your Boat?
Very Simple! Twice Over the Bottom with

BALUBRICOTE

The Bottom Coat for Faster Boats
Cuts Down Water Resistance! Easy to Apply and Good for a Season!
Ask your Dealer for BALUBRICOTE, or Order Direct from Makers—Quart, $2.00
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PLACE YOUR ORDER NOW!

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EARLY SPRING DELIVERY

LUXURIOUS PATE-PARKES CRUISER, THE OUTSTANDING BOAT IN THE INEXPENSIVE CRUISER FIELD. COMPLETE LIVING ACCOMMODATIONS FOR TWO.

LIMITED NUMBER AVAILABLE
WIRE FOR YOUR CONTRACT

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NASHVILLE, TENN.

BRANFORD

ANNOUNCES

A New Series of Remote Controls

For the Larger Motors

This Revolutionary Control
is already in production for the

1929 Elto Quad

and will soon be available for the
Johnson Sea Horse 16 and 32.

USING A NEW PRINCIPLE

This control device completely eliminates the uncertain and crude results inherent with the old style Bowden wire.

It is best suited for the better type of installations in the large runabouts where a quality and permanent control system is desired.

Designed for use with the BRANFORD runabout wheel—it can also be adapted for use with several other makes of the better steerers now used in outboard boats.

The Malleable Iron Fittings Co.
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or
The E. J. Willis Co., New York—*Eastern Distributors*

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a REAL IMPROVEMENT!

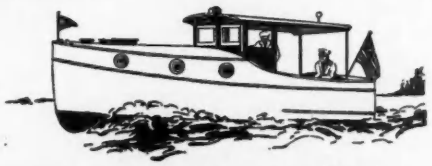
AT NO INCREASE IN PRICE all *RAJAH Solderless Terminals* are now fitted with BAKELITE FERRULES. The use of Bakelite ferrules simplifies the testing of spark plugs, excluding all danger of shock, besides making a better looking terminal.

The demand for these Rajah Solderless terminals with Bakelite ferrules is so great that we urge you to order from your dealer, or send direct to us at once.

Buick Type | Thrust Clip | Hook Clip | Ring | Spring Snap

THE RAJAH COMPANY
Bloomfield, New Jersey

Never Before Such a Small Cruiser Like This



Built for the Man Who Wants Outboard Cost of Operation

—plus the refinements and equipment of the average 30-footer. A large 4-cyl. outboard motor (entirely concealed) delivers 12-15 m.p.h.

Territory Franchises Open to Responsible Dealers

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THE ROCHESTER "21"

Send for Full Particulars on

LINTHWAITE

INBOARD OUTBOARD MOTORS

Three, Four and Six Unit Types

Also

Eight-Unit-in-Line 151" Class Motor

O. C. LINTHWAITE

Ahlberg Plant — **6301 Patricia Ave.**

CULVER CITY, CALIFORNIA

No Waiting

As distributors, we can arrange prompt delivery on

Dee-Wite and Herbst Outboard Boats

Write today for literature and prices.

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Chart No. 5—Boston Harbor
Chart No. 6—Buzzards Bay
Chart No. 7—Block Island to Vineyard Socund and Narragansett Bay
Chart No. 8—Delaware River and Bay
Chart No. 9—Chesapeake Bay—Part 1
Chart No. 10—Maine Coast
Chart No. 11—Hudson River, Kingston to Albany
Chart No. 12—Chesapeake Bay—Part 2
Chart No. 13—Lake Erie, Eastern End—Part 1
Chart No. 14—Lake Erie, Western End—Part 2
Chart No. 15—Hudson River, New York to Kingston
Chart No. 16—Lake Champlain, Whitehall to Rouses Point
Chart No. 17—The New York State Barge Canal System
Chart No. 18—Massachusetts Coast, Scituate to Newburyport
Chart No. 19—Massachusetts Coast, Newburyport to Cape Elizabeth
Chart No. 20—Cape Cod Bay, Massachusetts
Chart No. 21—Coast of Maine, Monhegan to Isle Au Haut
Chart No. 22—Chesapeake Bay, Cove Point to Smith Point—Part 3
Chart No. 23—Biscayne Bay, Florida
Chart No. 24—Thousand Islands, Wolfe to Grenadier Island
Chart No. 25—Delaware River, Trenton to Philadelphia
Chart No. 26—Delaware River, Philadelphia to Smyrna
Chart No. 27—New Jersey Coast, Cape May to Little Egg Inlet
Chart No. 28—New Jersey Coast, Little Egg Inlet to Bayhead
Chart No. 29—New Jersey Coast, Bayhead to New York Harbor
Chart No. 30—Chesapeake Bay, Smith Point to Cape Charles
Chart No. 31—Potomac River, Entrance to Lower Cedar Point
Chart No. 32—York and James Rivers
Chart No. 33—Delaware Coast, Cape Henlopen to Chincoteague Inlet
Chart No. 34—Virginia Coast, Chincoteague Inlet to Cape Charles
Chart No. 35—Virginia Coast, Cape Henry to Albemarle Sound
Chart No. 36—Albemarle Sound, North Carolina
Chart No. 37—Pamlico Sound, North Carolina
Chart No. 38—North Carolina Coast, Core Sound to New River Inlet
Chart No. 39—Carolina Coast, From Cape Fear to Winyah Bay
Chart No. 40—South Carolina Coast, From Winyah Bay to St. Helena Sound.
Chart No. 41—Georgia Coast, From St. Helena to Doboy Sound
Chart No. 42—Lake Michigan, Southern Part
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Chart No. 44—Lakes Michigan and Huron
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Chart No. 51—Nantucket Sound
Chart No. 52—Long Island Sound, Oyster and Huntington Bays
Chart No. 53—New York to Boston
Chart No. 54—Boston to Eastport
Chart No. 55—Trent Waterway, Ontario
Chart No. 56—Connecticut River

THE most suitable courses from all principal ports and harbors are given on these charts, as well as magnetic courses and bearings, distances in statute miles, all principal lights, buoys, etc. All charts are drawn to scale. They have proven invaluable to motor boatmen while cruising or planning a cruise.

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Cruise No. 10—Boston to Eastport, Maine
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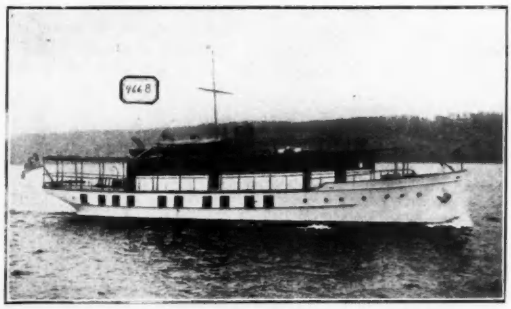
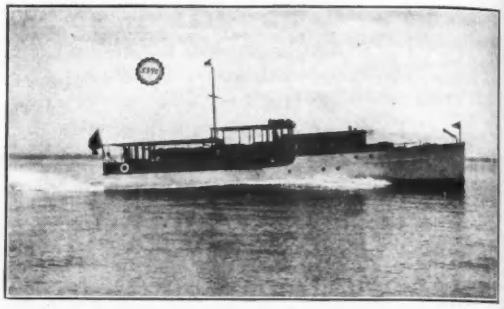
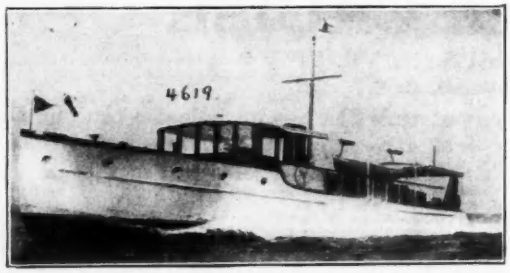


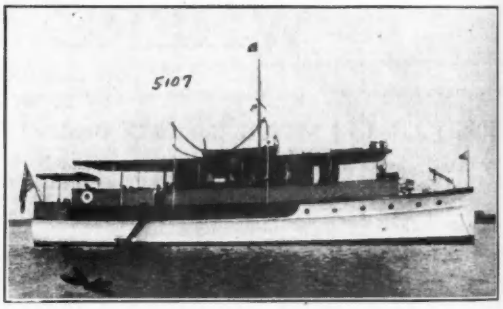
No. 4668—FOR SALE—Modern Twin-screw cruising power houseboat designed by us and built by Lawley in 1925. Length overall 95', beam 20', draft 4'6". Two 6 cylinder 125 H.P. Winton gasoline engines. Exceptionally roomy accommodations consisting of five staterooms, three baths in addition to a continuous deckhouse containing dining saloon, pantry and living room. Unusually large deckspace. Has inside passageway from dining saloon to living room. Attractively fitted and furnished. Offered account recent death of Owner. Price and further particulars from Cox & Stevens, Inc., 521 Fifth Ave., New York City.



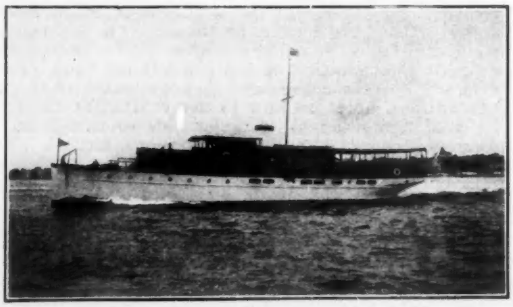
No. 5390—FOR SALE—Recently built fast Twin-screw 80-ft. power yacht; speed up to 21 miles; 2 six cylinder 350 H.P. Winton motors. Accommodations consist of large dining saloon in sunken deckhouse forward; below aft are two large double staterooms, shower bath and two toilets. Exceptionally roomy bridge and after deck both protected by windshields. All modern improvements, including Frigidaire ice machine. Opportunity to purchase at attractive figures. Further particulars from Cox & Stevens, Inc., 521 Fifth Ave., New York City.



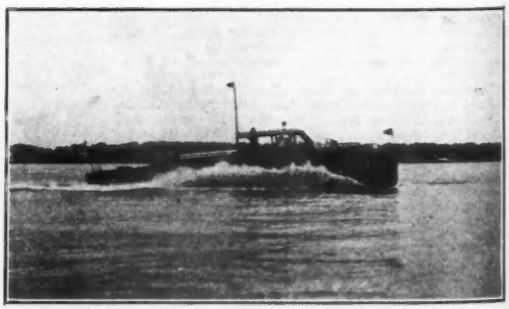
No. 4619—FOR SALE—Unusually fast and attractive 62-foot express cruiser. Would make ideal commuter. Large after cockpit. 2 double staterooms, 1 bath and 2 toilet rooms. Two 300 H.P., 8 cylinder Sterling Dolphin engines. Speed 25-30 miles. In commission. Price and further particulars apply to Cox & Stevens, Inc., 521 Fifth Ave., New York City.



No. 5107—FOR SALE—Modern 67' twin-screw power yacht (houseboat type), new 1927. Speed 12 miles; two 6 cylinder 80 H.P. Twentieth Century motors. Three staterooms, bath and toilet room, large dining saloon with extension sofa, as well as large deckhouse, containing living room. Roomy after deck. Opportunity purchase comparatively new craft at considerably less than cost of duplication. Cox & Stevens, Inc., 521 Fifth Ave., New York City.



No. 5332—FOR SALE—Modern 85' cruising power yacht, new 1927. Two 6 cylinder 100 H.P. Twentieth Century engines. Speed 13-14 miles. 2 double, 2 single staterooms, 2 baths and toilet rooms. Deckhouse contains dining saloon and living room. Spacious after deck 24' long. Opportunity to purchase a comparatively new boat at a very reasonable figure. Quick action necessary. Cox & Stevens, Inc., 521 Fifth Ave., New York City.



No. 6025—FOR SALE—Twin-screw 52-ft. express cruiser. Two 12 cylinder 400 H.P. Liberty motors. Speed up to 36 miles. Upper and lower berths in after cabin. 1 shower and toilet room. Forward and after cockpits. Excellent condition. Owner has purchased larger boat. Attractive figure for quick sale. Cox & Stevens, Inc., 521 Fifth Ave., New York City.

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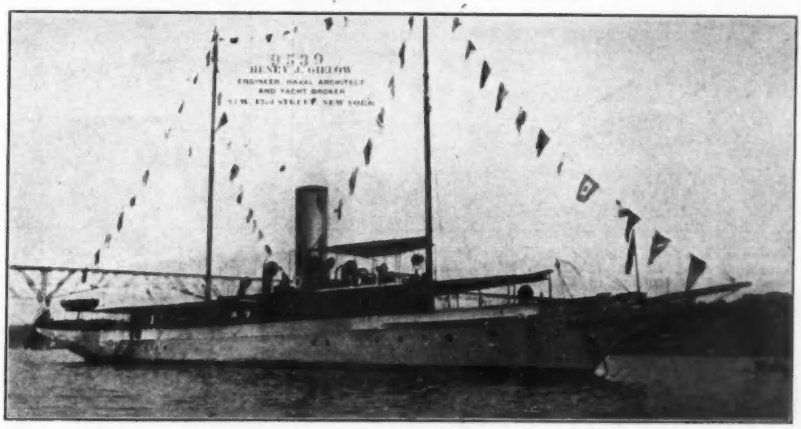

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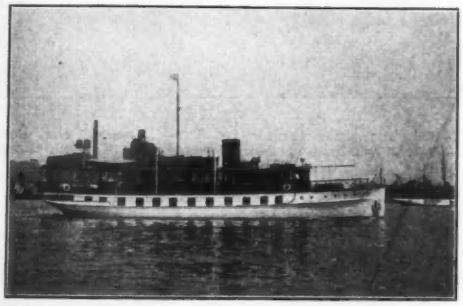

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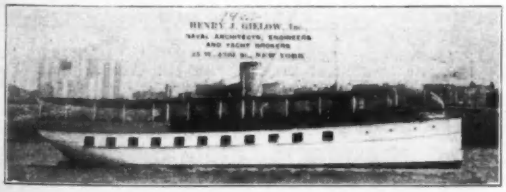
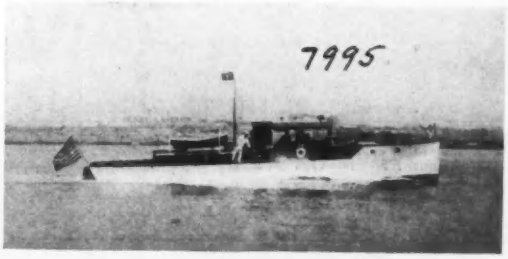


No. 9962—Opportunity to purchase at a reasonable price 88-foot twin-screw houseboat, best seaboat in any class, finest condition. Four staterooms, sleep seven, three baths. Speed 11 miles. Complete, attractively furnished.

What type of boat are you looking for? Those on this page represent but a few of the many yachts that we have listed for sale and for charter. This organization is prepared not only to supply you with the vessel which will exactly meet your requirements but will also arrange for all necessary details pertaining to its operation. Tell us of your desires. It is certain that we can be of material assistance to you.



7995—FOR SALE—In commission. Most attractively priced. 62-foot express cruiser, Sterling motors, speed 20 miles. Stateroom and two saloons sleep six. Toilet and shower bath. Comfortable cockpit and bridge deck. Seen near New York and demonstrated by appointment. Fine condition.

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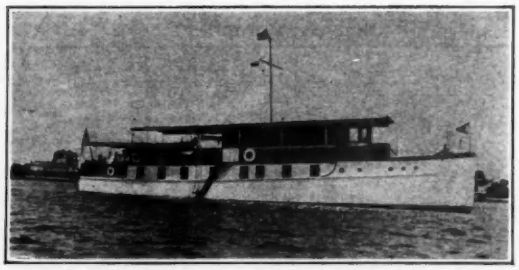
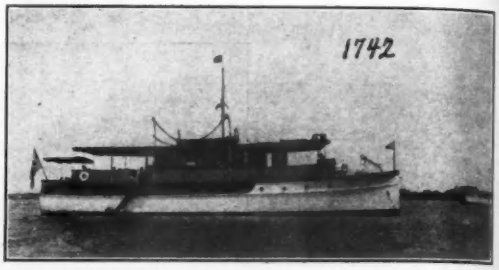
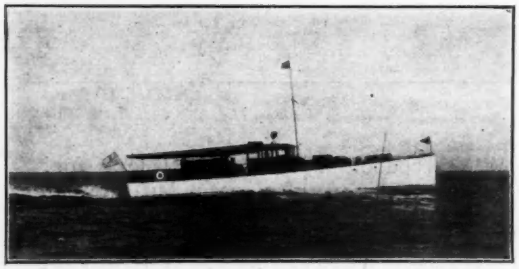


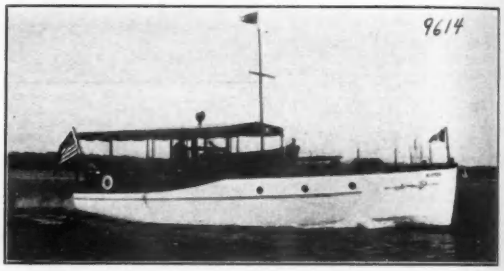
1856—For sale: A comfortable Twin Screw Cruiser of the houseboat type. L. o.a. 78', Beam 15' 3", Draft 4' 6". Admirably suited to cruising in Florida. Powered with 2 Speedway Motors, 115 H.P. ea.



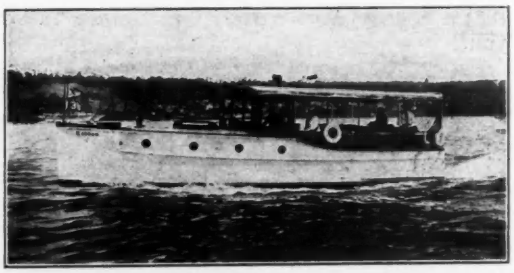
1742—For sale: One of the popular Houseboat cruisers, designed and built by the New York Yacht, Launch & Engine Co. L. o.a. 67', Beam 15' 6", Draft 3' 3". Powered with two 20th century motors, 100 H.P. ea.



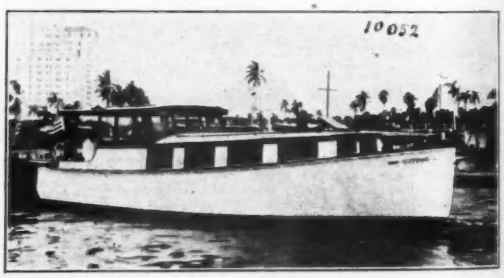
9969—This attractive boat for sale: Length overall 65' 5", Beam 13' 7", Draft 3' 9". Designed and built by Luders Marine Construction Co. and powered with two Winton gasolene motors.



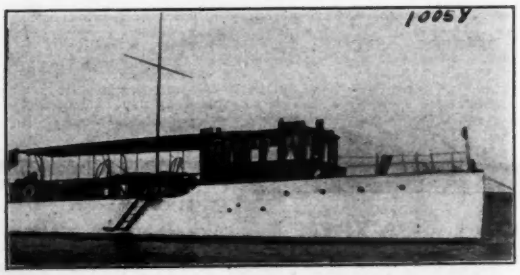
9614—This Attractive Cruiser for Sale—L. o.a. 38 feet, Beam 10', Draft 3' 6", built in 1923. Powered with Kermath motors.



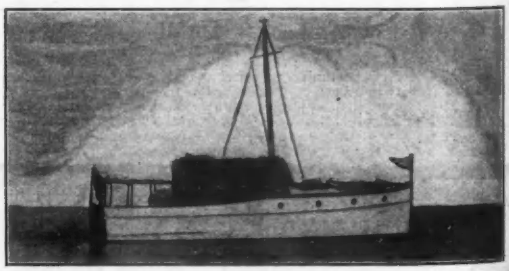
10073—For sale: Motor Cruiser. L. o.a. 36', Beam 9' 2", Draft 2' 11". Built 1924. Powered with W. S. M. Motor.



10052—For sale: L. o.a. 37', Beam 10' 8", Draft 2' 10", built 1929. An ideal Shoal Draft Fishing and Cruising Boat. Powered with a Universal 6-cylinder motor. Now in commission near New York City.



10058—Cruiser for sale: L. o.a. 55', Beam 12', Draft 3' 6". Built in 1928 and powered with 100 H.P. Lathrop motor.



10042—Cruiser for sale: L. o.a. 34', Beam 9' 4", Draft 3'. Built by Richardson in 1927 and powered with two Gray motors.

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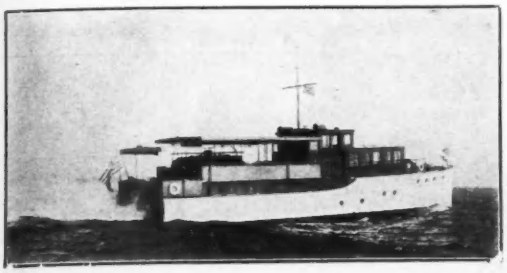
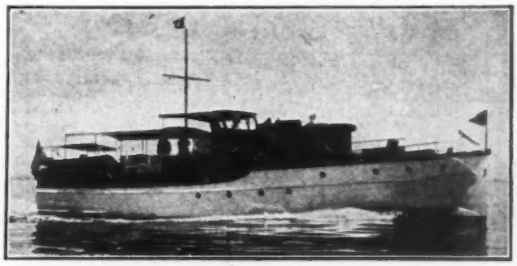
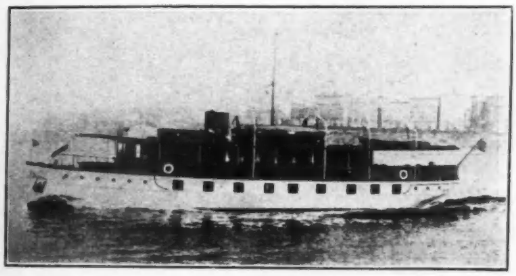


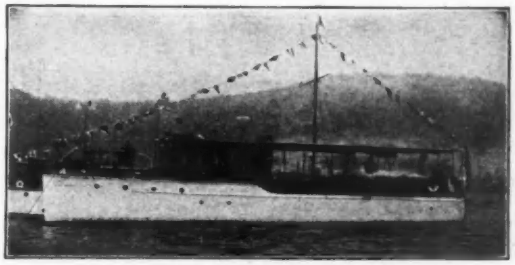
NO. 968—FOR SALE—Raised Deck Cruiser. Length o.a. 75'; beam, 13'9"; draft, 3'10". Powered with two 6-cylinder Sterling Petrels. Speed 14 m.p.h. For full particulars, apply to JOHN H. WELLS, Inc., 11 East 44th Street, New York, N. Y.



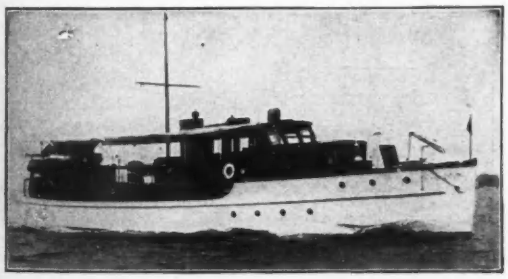
NO. 620—FOR SALE—Raised deck cruiser. Length o.a. 72'; beam, 14'3"; draft, 4'3". 2-150 H.P. Winton Engines, speed 14 m.p.h. For full particulars, apply to JOHN H. WELLS, Inc., 11 East 44th Street, New York, N. Y.



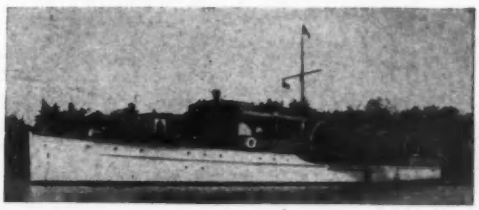
NO. 1086—FOR SALE—This very attractive houseboat. Length o.a. 93'. Beam, 18'. Draft, 4'. Powered with two 6-cylinder 7 x 8 Winton engines. Speed 15 m.p.h. For full particulars, apply to JOHN H. WELLS, INC., 11 East 44th Street, New York, N. Y.



NO. 999—FOR SALE—Raised Deck Cruiser. Length o.a. 55'; beam, 12'; draft, 4'6". Powered with 100 H.P. Lathrop Gas Engine. Speed 12-14 m.p.h. In perfect condition. For full particulars, apply to JOHN H. WELLS, Inc., 11 East 44th Street, New York, N. Y.



NO. 342—FOR SALE—Twin Screw Cruiser. Length o.a. 78'; beam, 13'; draft, 3'3". Powered with two 8-cylinder 5½x7 Speedway motors. Speed 20 m.p.h. For full particulars, apply to JOHN H. WELLS, Inc., 11 East 44th Street, New York, N. Y.



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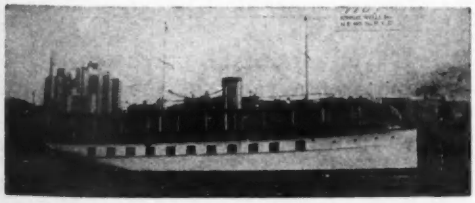
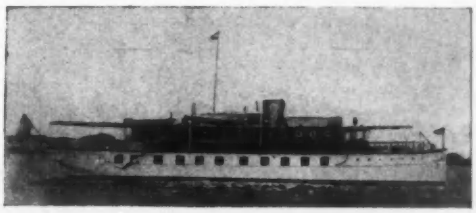


NO. 1107—FOR SALE—This completely equipped houseboat. Exceptionally well furnished. Length o.a. 87'6"; beam, 18'2"; draft, 4'. Capable of 12 m.p.h. For full particulars, apply to JOHN H. WELLS, Inc., 11 East 44th Street, New York, N. Y.

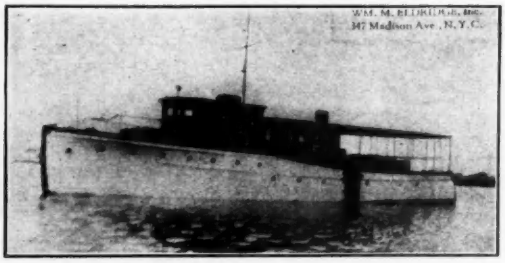


NO. 1070—FOR SALE—Cruising Houseboat. Length o.a. 104'. Beam, 19'. Draft, 4'. Two 200 h.p. Winton Engines. Speed 16 m.p.h. Spacious quarters. Beautifully decorated and completely equipped throughout. For full particulars, apply to JOHN H. WELLS, INC., 11 East 44th Street, New York, N. Y.

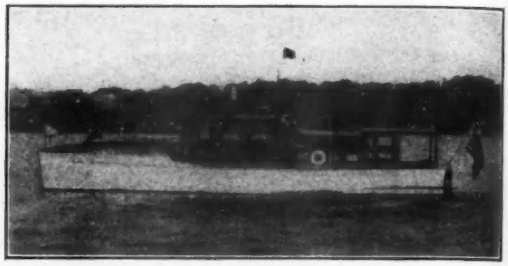
WILLIAM M. ELDRIDGE, Inc.

347 Madison Avenue Telephone: Murray Hill 0941 New York, N. Y.

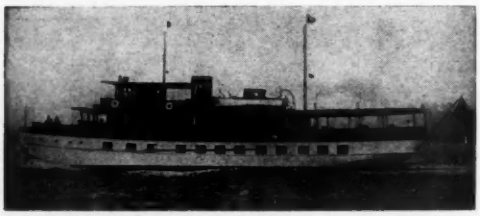
MARINE ARCHITECTS-YACHT BROKERS-MARINE INSURANCE



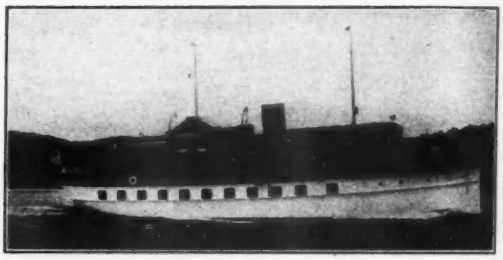
No. 2524—Twin Screw Diesel Yacht just completed. 65′ o.a. Beautifully and completely equipped. Exceptional opportunity.



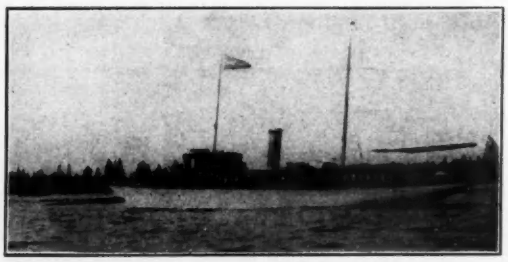
No. 1083—Express cruiser available, sale or charter. Cruising speed at 25 miles per hour. Just in commission, 45′ long.



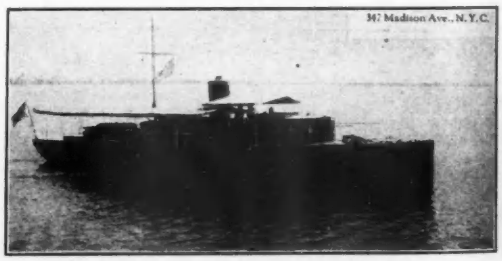
No. 2016—Available, sale or charter, 100′ Winton powered House-Boat. Accommodates 8 in owners party.



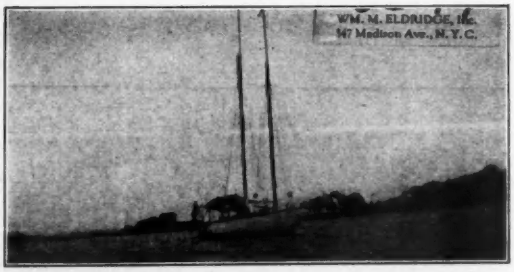
No. 2048—For a yachtsman wishing a yacht in the finest condition for the Fall, Winter and Spring, this 87′ twin screw cruising houseboat is available at an unusually attractive price.



No. 1169—75′ twin screw yacht in fine condition. Speedway Motors; Kelvinator. All mahogany cabins. Hull copper sheathed. Speed 14 miles. For sale or charter.



No. 1171—Luders built twin screw cruising yacht, 80′ x 14′ x 4′. Twentieth Century Motors. Two double staterooms. In fine condition.



No. 3047—Lawley built schooner, 68′ x 9′ o.a. in beautiful condition and fitted out for off shore cruising. An opportunity for a quick buyer.

If you desire to purchase or dispose of a yacht of the better kind, our organization is particularly fitted to meet your requirements.

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Yachts of All Types for Sale and Charter
Marine Insurance

11
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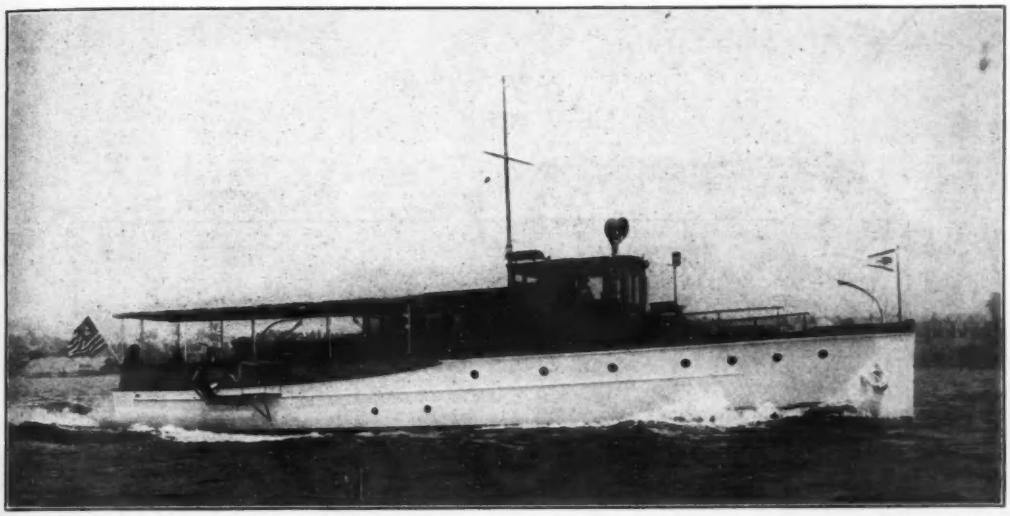
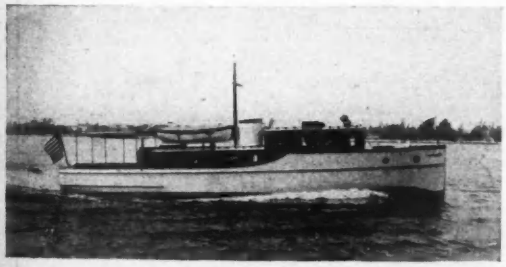
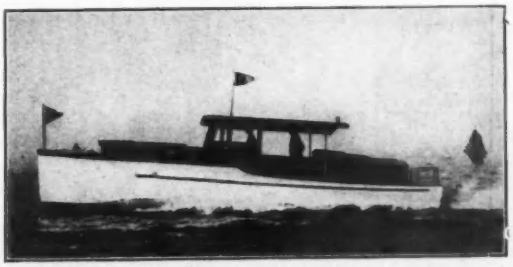
NEW YORK



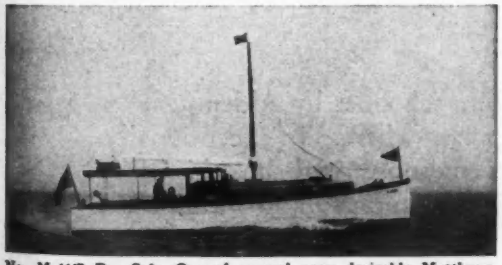
No. M-3439 For Sale—The owner of this Elco 62′ having ordered a larger boat, is offering her for sale, for delivery in full commission in Florida waters on March 15, 1930. She can be inspected in New York waters prior to October 1st. Her accommodations con sist of a large deck house, main cabin, one double and two single staterooms, one with a double berth; two toilet rooms, one with a shower. She is powered with two six cylinder motors and has a large inventory of extra and special equipment. For further information, price, etc., consult DRAKE H. SPARKMAN, 11 East 44th Street, New York.



No. M-4513 For Sale—A.C.F. 47′ cruiser; sleeping accommodations for six, toilet, galley and crew's quarters. Condition excellent. For further data, price and location, consult DRAKE H. SPARKMAN, 11 East 44th Street, New York.



No. M-4473 For Sale—Elco 38′ cruiser. Has had excellent care and inventory includes large list of extra equipment. For further data, price and location, consult DRAKE H. SPARKMAN, 11 East 44th Street, New York.



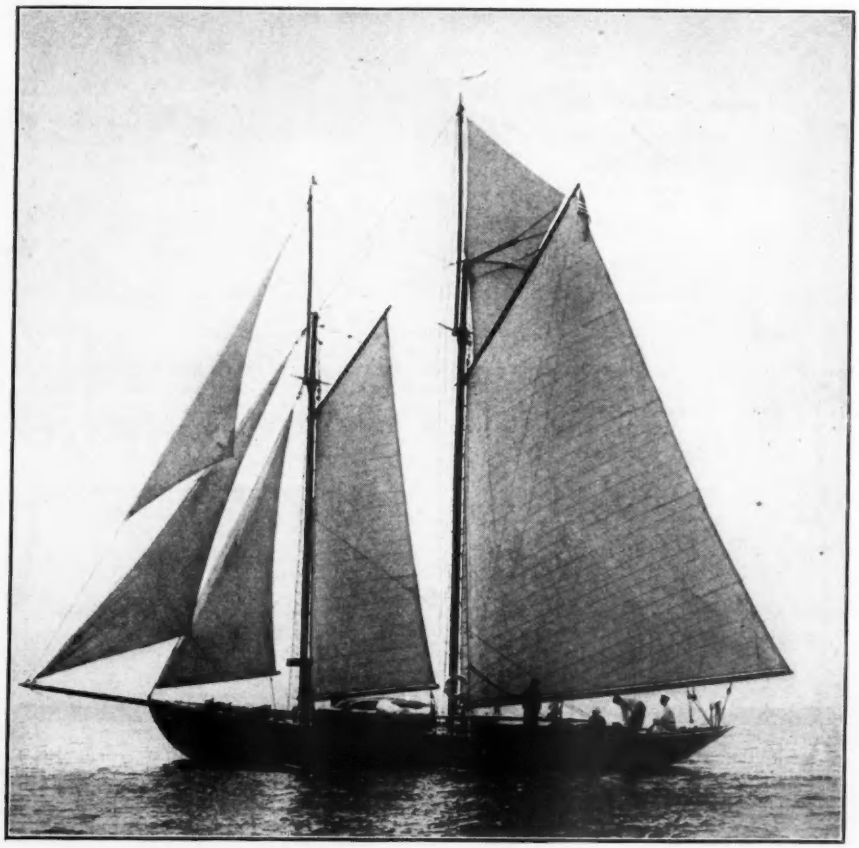
No. M-4447 For Sale—One of several very desirable Matthews cruisers which we are offering for sale at attractive prices. Complete list of available boats on request. DRAKE H. SPARKMAN, 11 East 44th Street, New York.

No. M-4506 For Sale—1929 Banfield delivered to owner in July. We consider her almost as good as a new boat and she has large inventory of extra equipment. For further data, consult DRAKE H. SPARKMAN, 11 East 44th Street, New York.

MILLARD BREWSTER & CHAMBERS

NAVAL ARCHITECTS YACHT BROKERS

230 PARK AVENUE
NEW YORK, N.Y.



FOR SALE: Well-known cruising schooner by Alden. 55′ x 14′ x 7′6″. Fast and able to go anywhere. In exceptionally beautiful condition. Owner has spent substantial sum this summer in refinements. She is completely equipped and the price is right. Further particulars furnished on request.

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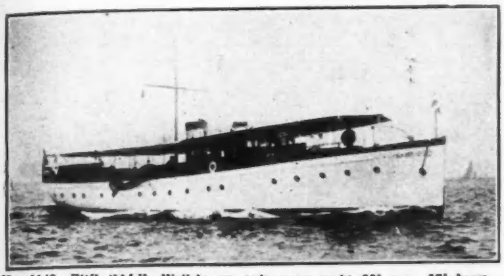
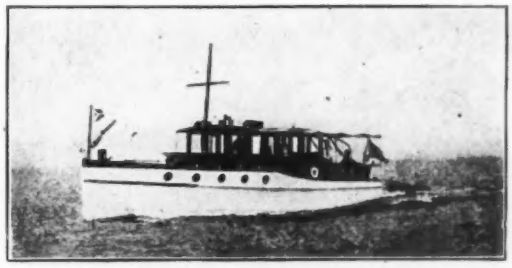
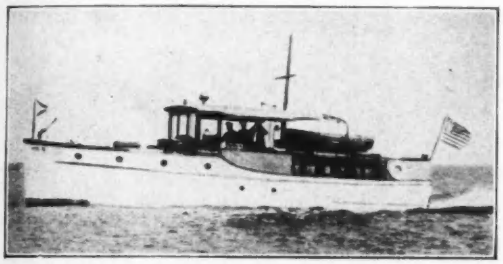
YACHT BROKERS—NAVAL ARCHITECTS



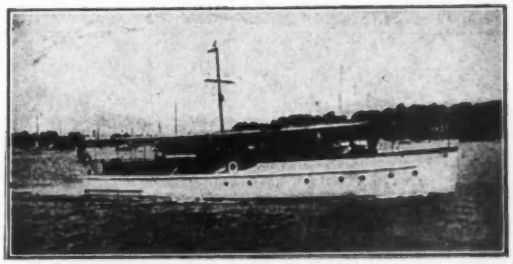
No. 1119—FOR SALE—Well-known twin-screw yacht 98' o.a., 17' beam, 6' draft. Very staunch and able. Has teak deck and deckhouses. Sleeping accommodation for seven in the owner's party. Fully equipped and in splendid condition. Powered with two 200 H.P. Winton heavy duty engines. Has two Winton generating plants. Edison batteries, Lux fire extinguishing system, ice machines, etc.



No. 1138—FOR SALE—60 ft. x 14 ft. beam deckhouse cruiser with Diesel engine. Heavily constructed, recent build. Excellent value. Further particulars from Henry C. Grebe & Co., Inc., 400 N. Michigan Avenue, Chicago, Ill.



No. 1866—FOR SALE—43'x10'8"x3'6". An unusually complete twin-screw double cabin cruiser of excellent construction and finish, Kermath power, Delco light plant, Frigidaire, electric bilge and air pump, electric engine room ventilator, etc. Sleeps six. Perfect condition. Wonderfully comfortable and seaworthy.



No. 1107—FOR SALE—Twin-screw cruiser. 65'x14'6"x4'. Two double staterooms, large saloon, 2 toilets and bath in owner's quarters. Sleeps eight. Sterling engines. Speed, 15 miles. Price attractive. Henry C. Grebe Co., Inc., 400 No. Michigan Ave., Chicago, Ill

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TELEPHONE
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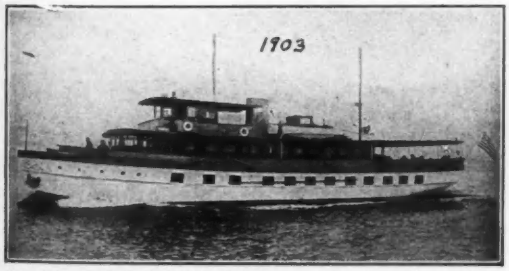
YACHT BROKER

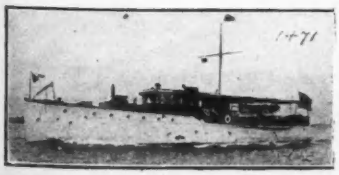
GEO. W. ELDER
Associate

501 FIFTH AVENUE (S. E. corner 42nd Street) NEW YORK

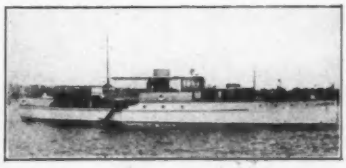


No. 1903—FOR SALE OR CHARTER—100' twin screw cruising houseboat, speed 13 miles. Built 1925. Has 5 staterooms, 3 bathrooms, deck dining salon, music room, etc. A palatial floating home, exquisitely furnished.

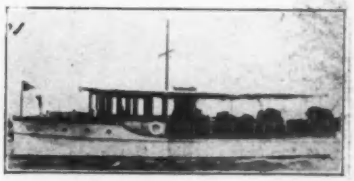
No. 2620—FOR SALE—67' twin screw Diesel houseboat, speed 14 miles. Built 1928. Four comfortable staterooms, deck dining salon, bath, etc. Ideal for Florida.



No. 1471—FOR SALE—77' twin-screw cruiser, speed 16 miles. 3 staterooms, deck dining salon, bath, etc. Fine sea boat.



No. 1630—FOR SALE—Might charter. 86' twin-screw Diesel cruiser, speed 12-13 miles. Sleeps 12 persons, bath, etc.



No. 1601—FOR SALE—47' enclosed bridge deck cruiser, speed 12 miles. 1 double stateroom and salon. Berth for man.

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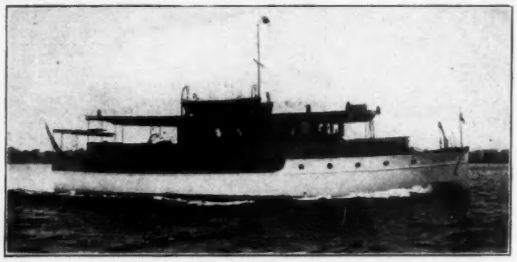
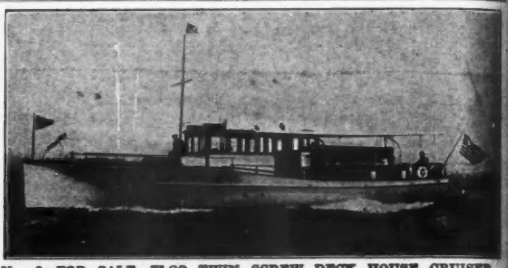
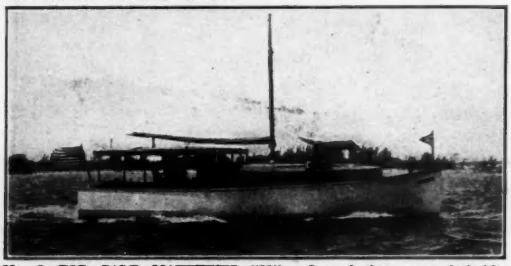


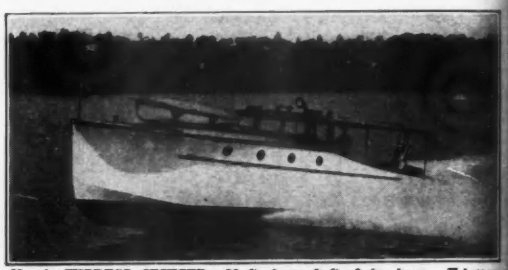
No. 1—FOR SALE—67-foot MOTOR YACHT with Houseboat accommodations. Delightfully comfortable, beautiful and modern. Twin screws, very seaworthy and all ready for use.



No. 2—FOR SALE—ELCO TWIN SCREW DECK HOUSE CRUISER. One of these splendid boats of the latest model. Length 56 feet. Has three staterooms. Description of boat, condition and price, on request.



No. 3—FOR SALE—MATTHEWS "38". One of these very desirable Cruisers, best condition. Length 38 ft. Beam 11 ft. Fine accommodations. Kermath Engine 6-cylinder. Also one with double cabin.



No. 4—EXPRESS CRUISER. 36 ft. long; 9 ft. 6 in. beam. V-bottom, carvel built. Sterling-Dolphin engine. Speed 26 miles. Forward cockpit; delightful cabin. Details on request.

Full Line of All Other Makes and Sizes, including Consolidated, A. C. F. and Other Elco Models

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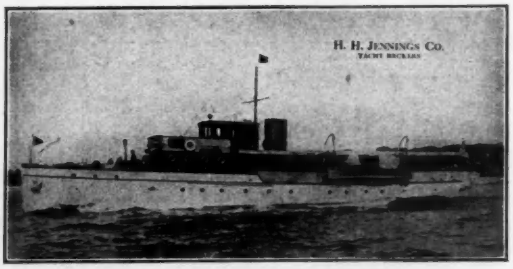
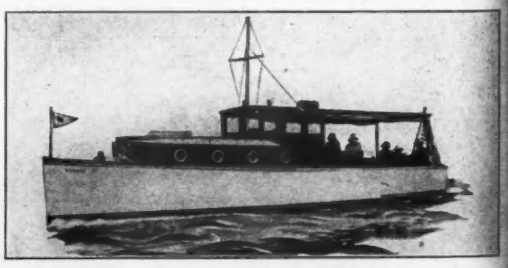
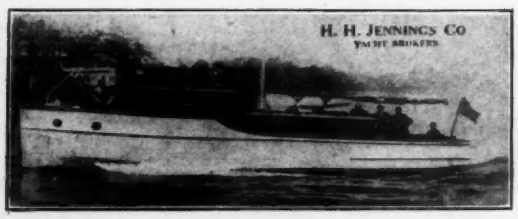


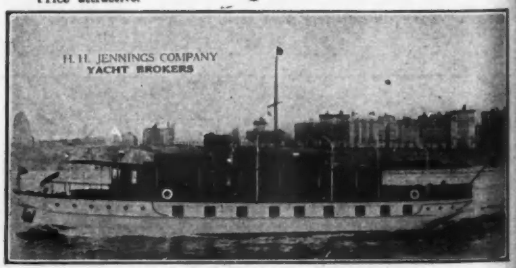
No. 2659—Twin screw Diesel yacht. 100'x19'x5'. Two double staterooms, two single staterooms. Deck saloon. Three bathrooms. Two 150 H.P. Winton motors. Speed 14-16 miles. Electric generators. Frigidaire icebox. Cruising radius 3,000 miles. Heavily constructed. Splendid seaboat.



No. 3032—Trunk cabin express cruiser. 38'x9'x2'6". Large cockpit with steersman's platform in forward part. Has 2 upper and 2 lower berths in cabin. Toilet room, galley. 150 H.P. Sterling Chevron Motor, electric starter. Speed 18-21 miles. Electric lights, etc. Has had very little use. Price attractive.



No. 2845—47-ft. A. C. F. Cruiser. Two double Pullman berths in forward cabin. Two upper and two lower berths in after cabin. Galley, Toilet. 100 H.P. Hall Scott Reduction Gear. Speed 14-15 miles. Electric Light. Lux Fire Extinguisher, etc. Splendid proposition.



No. 4632—Sale or Charter. One of the finest Mathis Houseboats available. Three double and two single staterooms. Large dining and living rooms. Three toilets and baths. Two 150 H.P. Winton motors. Speed 12-15 miles. Winton Generator, Two Frigidaires, etc.

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